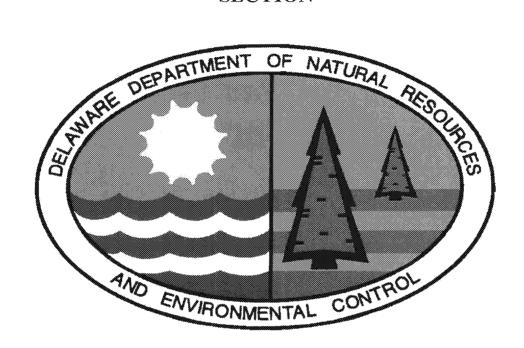
SITE INSPECTION OF PROCINO PLATING

DNREC SITE INVESTIGATION AND RESTORATION SECTION



DE-0344 September 2011

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EXECUTIVE SUMMARY

The Delaware Department of Natural Resources and Environmental Control, Site Investigation and Restoration Section (DNREC-SIRS), in cooperation with the United States Environmental Protection Agency (EPA), has conducted a Site Inspection (SI) at the Procino Plating facility (Site) located in Blades, Delaware.

The SI is intended to evaluate the extent to which a site presents a threat to human health or the environment by collecting and analyzing environmental media samples to determine whether hazardous substances are present and are migrating to the surrounding environment. The SI is not intended to be a detailed extent-of-contamination assessment or risk assessment. Therefore, information presented in this report for the Procino Plating facility should not be used as a means of contaminant delineation or as an indicator of source determination. This can only be characterized through further investigation.

Procino Plating is located at 901 South Market Street in Blades, Delaware. The site is approximately 1.16 acres in size, is comprised of two tax parcels (132-1.15-187.00 and 132-1.15-188.00), and is located at the intersection of South Market Street and 9th Street. The land use surrounding the Site is primarily residential.

The Site has been operational as a metal plating operation since the 1980's. Soil and groundwater data generated through this assessment was evaluated by DNREC-SIRS from an industrial use, residential use and drinking water use standpoint since the Site is surrounded by residential properties, and because area residents hydraulically downgradient of the Site utilize groundwater for drinking water purposes.

Iron was detected in soil samples PPMW-03D, PPSB-01D and PPSB-04D at concentrations exceeding its DNREC Uniform Risk-Based Remediation Standard (URS) in a Critical Water Resource Area for Unrestricted Use. Concentrations did not exceed the DNREC URS in a Critical Water Resource Area for Restricted Use, or the EPA Regional Screening Levels (RSLs) for Residential or Industrial use. Other metals were not detected at concentrations in excess of applicable standards.

Volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides and polychlorinated biphenyls (PCBs) were not detected in the shallow or deep soil samples selected for confirmatory analysis at concentrations in excess of regulatory standards.

Chloroform was detected in the groundwater sample collected from site monitoring well PPMW-06 at an estimated concentration of 0.9 micrograms per liter (ug/l). The DNREC Groundwater URS for chloroform is 0.1 ug/l. The concentration is below the EPA RSL for Tapwater and the EPA Maximum Contaminant Level (MCL). Chloroform is also a common laboratory artifact. Other VOCs were not detected at concentrations in excess of regulatory standards.

SVOCs were not detected in groundwater samples collected from the Site monitoring wells at concentrations in excess of regulatory standards.

Dieldrin was detected in the groundwater sample collected from monitoring wells PPMW-03, PPMW-05 and the PPMW-01duplicate sample at concentrations exceeding its EPA RSL for Tapwater and the DNREC Groundwater URS. An EPA MCL does not exist for Dieldrin. Heptachlor epoxide was detected in the groundwater sample collected from monitoring well PPMW-03 at a concentration exceeding its EPA RSL for Tapwater and the DNREC Groundwater URS, but below its EPA MCL. PCBs were not detected in the groundwater samples collected from Site monitoring wells.

Aluminum was detected in the total metals sample collected from monitoring well PPMW-01 and the PPMW-01 duplicate sample at a concentration exceeding its DNREC groundwater URS, but below its EPA RSL for Tapwater. An EPA MCL does not exist for aluminum. Aluminum was not detected in the dissolved metals sample from the same well or the duplicate. Nickel was detected in the total and dissolved metals sample collected from monitoring well PPMW-06 at a concentration exceeding its DNREC Groundwater URS, but below its EPA RSL for Tapwater. An EPA MCL does not exist for nickel. Chromium was detected in the total and dissolved groundwater sample collected from monitoring well PPMW-06 at a concentration in excess of its DNREC Groundwater URS and its EPA MCL. Cyanide was not detected in any of the groundwater samples collected from Site monitoring wells.

Barium was detected in six of the private water supply well samples collected in May 2010 and April 2011 at concentrations exceeding its DNREC Groundwater URS, but below its EPA RSL for Tapwater and its EPA MCL. Manganese was detected in 11 of the private water supply well samples collected in May 2010 and April 2011 at concentrations in excess of its DNREC Groundwater URS and its EPA Secondary MCL, but below its EPA RSL for Tapwater. Zinc was detected in the sample collected from one private water supply well in May 2010 at a concentration exceeding is DNREC Groundwater URS and its EPA Secondary MCL, but below its EPA RSL for Tapwater. The same supply well was sampled again in April 2011, and although present, the concentration of zinc was below all applicable standards.

Cyanide was detected in one drinking water sample collected in April 2011. Although the concentration was low (0.02 mg/l, or 20 ug/l), it merits mentioning due to the uncommon nature of the detection. Review of the data and chromatograms by the DNREC-SIRS Senior Chemist indicated that the detected concentration was not an artifact of the laboratory analysis, and that the cyanide was present in the sample. The water supply well that the sample was collected from is screened at a depth of 43 to 48 feet below ground surface.

Surface water, sediment and air samples were not collected as part of this SI.

RECOMMENDATIONS

DNREC-SIRS recommends additional assessment at the Site in the form of a remedial investigation (RI) to further evaluate the horizontal and vertical extent of chromium detected in the groundwater from monitoring well PPMW-06 at concentrations exceeding EPA MCLs. In addition, the presence of pesticides in monitoring wells PPMW-01, PPMW-03 and PPMS-05 should be evaluated further since concentrations exceed DNREC and EPA screening levels. Because only shallow groundwater quality was evaluated through the SI, deeper groundwater quality needs to be evaluated for its potential impact to private water supply wells hydraulically downgradient of the Site, specifically from cyanide, and also for its potential impact to sediments in the Nanticoke River due to groundwater discharge.

The recommended RI can be conducted through the DNREC-SIRS Voluntary Cleanup Program (VCP).

TABLE OF CONTENTS

	ECUTIVE SUMMARYCOMMENDATIONSCOMMENDATIONS	
1.0	INTRODUCTION	1
2.0	BACKGROUND INFORMATION	
	2.1 SITE LOCATION AND DESCRIPTION	1
3.0	DNREC-ASSESSMENT RATIONALE AND SITE VISIT SUMMARY	2
4.0	METHODOLOGIES	3
	4.1 SAMPLING	3 4 4
5.0	SOIL EXPOSURE PATHWAY	6
	5.1 PHYSICAL SETTING/SOIL MORPHOLOGY	7
6.0	GROUND WATER EXPOSURE PATHWAY	7
	6.1 HYDROGEOLOGIC SETTING	7 8 8
7.0	SURFACE WATER AND SEDIMENT EXPOSURE PATHWAY	10
	 7.1 HYDROLOGIC SETTING	10
8.0	AIR EXPOSURE PATHWAY	10
	8.1 AIR TARGETS	10
9.0	SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	11
	9.1 SUMMARY	12

LIST OF TABLES

- Table 1 Monitoring Well Information and Groundwater Elevations
- Table 2 Summary of Soil Analytical Results - VOCs
- Table 3 Summary of Soil Analytical Results - SVOCs
- Table 4 Summary of Soil Analytical Results - Pesticides & PCBs
- Table 5 Summary of Soil Analytical Results - Metals
- Table 6 Summary of Groundwater Analytical Results - VOCs
- Table 7 Summary of Groundwater Analytical Results - SVOCs
- Summary of Groundwater Analytical Results Pesticides and PCBs Table 8
- Table 9 Summary of Groundwater Analytical Results - Metals
- Summary of Private Well Analytical Results Table 10

LIST OF FIGURES

- Figure 1 Location of Procino Plating
- Figure 2 Site Features Map
- USGS 7.5 Minute Topo Map Figure 3
- Figure 4 1937 Aerial Photograph
- Figure 5 1954 Aerial Photograph
- Figure 6 1961 Aerial Photograph
- Figure 7 1968 Aerial Photograph
- Figure 8 1992 Aerial Photograph
- Figure 9 1997 Aerial Photograph
- Figure 10 2002 Aerial Photograph
- Figure 11 2007 Aerial Photograph
- Figure 12 Monitoring Well and Soil Boring Locations
- Figure 13 Private Well Sampling Locations
- Figure 14 Groundwater Elevation Contour Map 5/24/11

LIST OF APPENDICES

- Parcel Title Search Appendix A
- Appendix B Soil Boring Logs
- Well Development Field Logs Appendix C Groundwater Sampling Field Logs
- Appendix D Soil Sample Screening Results (on cd)
- Appendix E
- Chain of Custody Records Appendix F
- Soil Sample Analytical Results (on cd) Appendix G
- Appendix H Groundwater Sample Analytical Results (on cd)
- Appendix I Drinking Water Sample Analytical Results

1. INTRODUCTION

The Delaware Department of Natural Resources and Environmental Control, Site Investigation and Restoration Section (DNREC-SIRS), in cooperation with the United States Environmental Protection Agency (EPA), has developed this Site Inspection (SI) report for the Procino Plating facility (Site), located in Blades, Sussex County, Delaware (Figure 1).

The purpose of this SI was to investigate the possible existence of released hazardous substances at the Site through the collection and analysis of environmental samples. The analytical data generated from the collection and laboratory analysis of the environmental samples has been subsequently evaluated to determine the potential for human and environmental exposures to hazardous substances.

The objective of this assessment was not to define the full extent of site contamination or to conduct a risk assessment. Instead, DNREC-SIRS has prepared this SI report along with the evaluation of data to determine whether the Site should undergo further investigation or obtain a "No Further Action" (NFA) designation under the Federal Superfund and/or DNREC-SIRS Programs.

2. BACKGROUND INFORMATION

2.1. SITE LOCATION AND DESCRIPTION

Procino Plating is located at 901 South Market Street in Blades, Sussex County, Delaware. A site features map is shown as Figure 2. The Site is approximately 1.16 acres in size, is comprised of two tax parcels (132-1.15-187.00 and 132-1.15-188.00), and is located on the corner of South Market Street and West 9th Street. The central coordinates for the Site is latitude 38° 37'48" by longitude 75° 36'34". The elevation of the Site is an average of 10-20 feet above mean sea level with flat topography (Figure 3). Water and sewer service is supplied to the Site by the Town of Blades. According to the property owner, the Site is currently an active plating facility, although the extent of plating operations has been reduced to hard chrome plating for griddle tops, and minor aluminum etching.

The Site is surrounded by residential properties to the north, south and east. Rail-road tracks are located adjacent to the site towards the west, with a residential community located on the opposite side of the rail-road tracks.

According to the National Weather Service Data, the average yearly temperature in this area is 56 degrees Fahrenheit. In general, the month with the lowest average temperature is January, with average temperatures in the mid 30's. July has the highest average temperature, with averages in the mid 70's. The average annual precipitation is approximately 47 inches.

2.2. HISTORICAL SITE USES AND LAYOUT

No Sanborn Fire Insurance Maps were available for review of the Site area. However, DNREC-SIRS reviewed aerial photographs for the years 1937, 1954, 1961, 1968, 1992, 1997, 2002, and 2007 (Figures 4 - 11). The following is a chronological summary based on the review of the aerial photographs.

The aerial photograph is of poor quality. The Site appears to be an undeveloped agricultural field. The surrounding parcels also appear to be agricultural fields (Figure 4).

- The Site appears to have one building located on the eastern portion of the property (Figure 5). It also appears that the surrounding properties have not been developed. However, several surrounding properties look like they have been cleared and sited for potential development. The Town of Blades appears to be developing and expanding.
- The aerial photo is of poor quality. The Site appears to be unchanged, with the one building in the eastern portion of the property. The surrounding properties appear to have been developed into residential properties (Figure 6).
- The aerial photograph is of poor quality. The Site and adjacent properties appear unchanged. The Town of Blades, however, has expanded (Figure 7).
- The aerial photograph shows considerable change to the Town of Blades, but the Site appears unchanged when compared to the 1968 aerial photo (Figure 8).
- The Site appears to have two additional buildings on the western portion of the property (Figure 9). The surrounding properties appear unchanged from the 1992 aerial photograph.
- A shed like structure appears to have been added onto the south side of the western Site buildings (Figure 10). Surrounding properties appear unchanged.
- The aerial photograph is concentrated on the Site. The Site and surrounding properties appear to be unchanged from the 2002 aerial photograph (Figure 11).

The current property owners purchased the two parcels in May and July of 1996. Additional ownership information can be found in Appendix A. The Site has been operational as a metal plating operation since the 1980's. Past use of the Site prior to a plating operation was not obtained by DNREC-SIRS.

3. DNREC – ASSESSMENT RATIONALE AND SITE VISIT SUMMARY

In response to information obtained from the DNREC-Solid and Hazardous Waste Management Section (SHWMS) regarding improper handling of hazardous waste at the site, an area reconnaissance was conducted on May 19, 2010 with the Delaware Division of Public Health (DPH) Office of Drinking The ODW was asked to accompany DNREC-SIRS to the area to sample any registered/permitted private water supply wells within the Town of Blades limits to determine if any chemicals were present that could possibly have originated from the Procino Plating facility. On the same day, SIRS personnel accompanied ODW staff during the collection of compliance samples from the two Town of Blades water supply wells. Only a few of the registered private water supply wells were found by DNREC-SIRS, each of which appeared to be out of service. As a check, water from an outdoor spigot from each of the residences where private water supply wells were registered was tested for the presence of chlorine, which would indicate that the water was being supplied by the Town of Blades. Each home that was tested by ODW was confirmed for the presence of chlorine. During the compliance sampling of the Town's water supply wells, the facility's Operator told DNREC and ODW that the community west of the Procino Plating facility and across the railroad tracks were all served by private water supply wells, because the community is located outside the municipal limits of the Town. SIRS and ODW personnel investigated the area and obtained permission to collect drinking water samples from 4 (four) residences. Detailed results of the sampling are discussed below. However, zinc was detected in one of the water supply wells at a concentration in excess of its EPA Secondary Maximum Contaminant Level (MCL).

Based upon the information obtained in May 2010, DNREC-SIRS decided to utilize EPA Preliminary Assessment/Site Inspection (PA/SI) funding to investigate the Site. The PA was completed and submitted to EPA in October 2010. As indicated in the PA, DNREC-SIRS personnel accompanied representatives from the DNREC-Solid and Hazardous Waste Management Section (SHWMS) on a site visit on September 14, 2010. During that visit, information was provided by Mr. Patrick Procino to SIRS staff regarding the past and current plating operations at the facility. A summary of that visit can be obtained from the PA for the Site. Results of the PA indicated that operations at the Site had the potential to impact soil and groundwater, and a SI was recommended.

During the planning stages for the SI, DNREC-SIRS and ODW personnel again visited the community located to the west of the Procino Plating facility to collect additional private water supply well samples. A total of 12 private water supply wells were sampled on April 28, 2011.

DNREC-SIRS personnel mobilized to the Site to perform soil sampling and monitoring well installation associated with the SI on May 24, 25 and 26, 2011. Thirteen (13) soil borings and six (6) monitoring wells were installed. The monitoring wells were sampled on June 16 and 17, 2011.

4. METHODOLOGIES

4.1. SAMPLING

DNREC sampled both shallow and deep soil from each soil boring/monitoring well location during this SI. In total, DNREC collected twenty-six (26) soil samples from thirteen (13) sample locations. DNREC also installed six (6) groundwater monitoring wells using a Geoprobe® rig, and collected one groundwater sample from each well. Soil boring and monitoring well locations are shown on Figure 12. Quality control samples were also collected for both soil and groundwater. All soil samples were screened in the DNREC-SIRS laboratory prior to determining which samples would be submitted to a fixed laboratory for confirmatory analysis. Groundwater samples were not screened at the DNREC-SIRS laboratory, but were submitted directly to a fixed laboratory.

Field sampling and sample handling adhered to the procedures as specified in the State of Delaware Site Inspection Quality Assurance Project Plan (QAPP). A copy of the QAPP is available for review at the office of the Department of Natural Resources and Environmental Control, 391 Lukens Drive, New Castle, Delaware, 19720.

In addition to the samples mentioned above, a total of sixteen (16) private water supply well samples from thirteen (13) locations were collected during the SI in cooperation with Delaware's ODW. All of the samples were submitted directly to a fixed laboratory for confirmatory analysis.

4.1.1.SOILS

DNREC collected twenty-six (26) soil samples and appropriate QA/QC samples from thirteen (13) sample locations during this SI using a Geoprobe® rig and direct push sampling techniques. Soil borings were installed on May 24, 25 and 26, 2011.

Soil samples were collected in 5-foot acetate sleeves (cores), continuously, until the top of the water table was reached. Each acetate sleeve was removed from the macrocore sampler and split lengthwise to reveal the soil section. After each acetate sleeve was split, the core was screened with a Photovac® portable photo ionization detector (PID) and then logged by a DNREC-SIRS Hydrologist. No measurements above background readings (zero) were recorded for soil at the

Site. Composited shallow soil samples were collected from the top twenty-four (24) inches of the first core in each borehole. A composited deep sample was collected, generally, from the twenty-four (24) inches immediately above the water table. The shallow and deep samples collected for volatile organic compound (VOC) analysis were collected from the split acetate sleeve using a 10 milliliter (ml) syringe, and placed into a 40 ml VOA vial containing approximately 25 ml of methanol. The remaining soil was homogenized with disposable plastic scoops in a disposable food-grade aluminum pan and put into sterilized 8-ounce wide mouth glass jars for semivolatile organic compound (SVOC), pesticide/polychlorinated biphenyl (PCB), metals and cyanide analysis. The jars were appropriately labeled, placed in zip-lock bags, and stored in coolers with ice for transportation. The bore holes were subsequently backfilled with the remaining excavated material and sealed with bentonite as needed. Soil sample locations are shown on Figure 12. Soil boring logs are included as Appendix B.

4.1.2.GROUNDWATER

DNREC installed six (6) groundwater monitoring wells on May 24 and 25, 2011 to assess the groundwater quality beneath the Site. Monitoring wells were constructed using 1-inch diameter polyvinylchloride (PVC) well casing and 10 feet of 1-inch diameter, 0.010 inch slot size, PVC pre-packed well screen. A pre-packed bentonite seal was used to seal the well screen from the surface. All of the monitoring wells were finished at grade using flush-mounted steel manways set into an approximate 16 inch square concrete pad. The monitoring wells were installed by a Delaware licensed well driller in accordance with the Delaware Regulations Governing the Construction and Use of Wells, April 6, 1997. All drilling activities were supervised by a DNREC-SIRS Hydrologist. Monitoring well locations are shown on Figure 12.

The monitoring wells were developed by pumping with a peristaltic pump and disposable tubing. The wells were surged several times during development with the well development tubing. Stabilization parameters of pH, temperature, specific conductance, dissolved oxygen and turbidity (visual) were noted at regular intervals during well development. Once the water was relatively free of suspended material, and all stabilization parameters were within approximately 10% of the previous reading, well development was discontinued. Well development logs are included in Appendix C.

On June 16 and 17, 2011, DNREC collected six (6) groundwater samples and appropriate QA/QC samples from the groundwater monitoring wells. Groundwater was collected from the wells using a peristaltic pump and disposable tubing. Each well was purged using low flow sampling techniques and until stabilization parameters, as noted above, were within approximately 10% of the previous reading. Three VOA vials preserved with hydrochloric acid (HCl) were filled first for VOC analysis. Two, 2-liter unpreserved amber jars were filled each for SVOCs, pesticides, and PCB analysis (total of 6). Next, one 250 ml polyurethane container preserved with sodium hydroxide (NaOH) was filled for cyanide analysis. Finally, two, 500 ml polyurethane containers preserved with nitric acid (HNO3) were filled for total metals and dissolved metals. The sample collected for dissolved metals analysis was filtered through a .45 micron in-line filter to remove the suspended solids within the sample. All sample bottles were appropriately labeled and placed in coolers with ice for transportation. Groundwater sampling logs are included in Appendix D.

4.1.3.DRINKING WATER

On May 19, 2010, DNREC-SIRS and ODW collected samples of drinking water from 4 residences located in a community to the west of the Site. Permission was obtained from each of

the property owners prior to collecting the sample. Each sample was collected by an ODW certified Drinking Water Sampling Technician in laboratory supplied containers. Samples were collected for VOCs, trace metals and cyanide.

On April 28, 2011, DNREC-SIRS and ODW collected twelve samples from the same community mentioned above, in the same manner as mentioned above. Samples were collected for trace metals and cyanide only. A map of the community where drinking water samples were collected is shown on Figure 13.

4.2. QUALITY ASSURANCE/QUALITY CONTROL

The QA/QC sample program requires that samples be collected to evaluate the quality of field sampling practices and equipment decontamination practices, including trip blanks, field duplicates, laboratory duplicates, and/or field rinsate blanks. An explanation of each follows below:

Trip Blanks consist of four (4) forty milliliter glass vials filled with distilled water and sealed with a Teflon lined cap. Trip blanks are used to evaluate the potential for cross contamination of site samples from contamination sources outside the sampling area. Trip blanks are filled with distilled water prior to sampling, sealed, transported to the sampling site and returned to the laboratory without reopening for analysis. Trip blanks are analyzed for VOCs only.

Field duplicates consist of an actual sample for which twice as much volume as necessary has been collected. Aliquots of this volume are then distributed in two sets of sample containers and submitted to the laboratory as two separate samples. Field duplicates are used to assess the consistency of sampling homogeneity and laboratory analytical consistency. One field duplicate was collected for soil and one field duplicate was collected for groundwater during this SI.

Laboratory duplicates (also referred to as Matrix Spike/Matrix Spike Duplicate [MS/MSD]) represent a sample location in which twice the normal sample volume is collected. The purpose of the laboratory duplicate is to provide the analytical laboratory with a sample which can also serve to calibrate analytical machinery. The laboratory duplicate is normally spiked with a known concentration of chemical and this sample is used to calibrate the instrument. One MS/MSD was collected for soil and one MS/MSD was collected for groundwater during this SI.

Field Rinsate blanks were not collected during this sampling event since all of the samples were collected using sterile disposable sampling equipment.

4.3. SAMPLE ANALYSIS

Sample analysis consists of all or part of the USEPA Target Analyte List (Inorganics) and Target Compound List (Organics) (TAL/TCL). The TAL/TCL analytes are commonly associated with environmental and human health concerns because they are routinely found in former industrial and land filled areas.

All soil samples collected during this SI were first screened in the DNREC-SIRS laboratory for the following classes of compounds: VOCs, pesticides, SVOCs, polycyclic aromatic hydrocarbons (PAHs), PCBs, total petroleum hydrocarbons (TPH) and metals. Screening was performed using a portable Gas Chromatography/Mass Spectroscopy (GC/MS) and an X-Ray Fluorescence machine (XRF). Screened soil samples identified as having elevated concentrations of contaminants for a particular chemical suite were chosen for confirmatory analysis. Partial and/or full TAL/TCL confirmatory analysis may be conducted upon samples based on the results of the DNREC-SIRS

laboratory screening. Groundwater samples were not screened in the DNREC-SIRS laboratory, but were delivered directly to a confirmatory laboratory for full TAL/TCL analysis. The screening data associated with the Procino Plating site is included in Appendix E.

A GC/MS System was used by the confirmatory laboratory to analyze soil and groundwater samples for SVOCs, VOCs, pesticides and PCBs. Metals were analyzed using an Atomic Absorption Unit and an Inductively Coupled Plasma Unit (AA and ICP). Analysis using the GC/MS system and AA and ICP provides a good tool by which to determine the presence or absence of compounds and analytes at sites under investigation.

For this SI, five (5) of the soil samples (19%) and six (6) of the groundwater samples (100%), plus quality assurance/quality control (QA/QC) samples were submitted to a fixed laboratory for confirmatory analysis of chemicals of concern (COCs). The DNREC Environmental Laboratory in Dover, Delaware performed the analysis of VOCs, SVOCs and metals for both soil and groundwater samples. Test America, Inc. in Edison, NJ performed the analysis of pesticides, PBCs and cyanide for both soil and groundwater samples. Chain of custody records for soil and groundwater samples are included in Appendix F.

Drinking water samples collected for VOCs, trace metals and cyanide on May 19, 2010 were analyzed by the Delaware Public Health Laboratory in Smyrna, Delaware. Drinking water trace metals samples collected on April 28, 2011 were also analyzed by the Delaware Public Health Laboratory. Cyanide samples collected on April 28, 2011 were analyzed by Atlantic Coast Laboratories, Inc. in Newark, Delaware.

All analytical results were compared to appropriate EPA Regional Screening Levels for soil and/or tapwater, and Maximum Contaminant Levels (MCLs) for drinking water. In addition, results were compared to appropriate Delaware Uniform Risk-Based Remediation Standards (DE URS) for the Protection of Human Health as published in the DNREC-SIRS Remediation Standards Guidance under the Delaware Hazardous Substance Cleanup Act (HSCA), Revised December 1999. Soil, groundwater and drinking water analytical results are summarized in Tables 2 through 10, and are provided in Appendices G, H and I, respectively.

5. SOIL EXPOSURE PATHWAY

5.1. PHYSICAL SETTING/SOIL MORPHOLOGY

The Site is mostly covered by office space and warehouse type buildings. A very small portion of the east and south side of the property is grass covered. Paved parking areas extend the length of the northern side of the property, and a dirt access road and unpaved equipment storage areas occupy the west side of the property.

According to the U.S. Department of Agriculture (USDA), Soil Conservation Service (SCS) soil mapping report for Sussex County, the Site area consists of Evesboro loamy sand (EvB). The Evesboro loamy sand has a slope of 2-5%. This soil is found on ridges or on the sides of ridges within or adjacent to areas of Evesboro loamy sand, loamy substratum (EvA) with a 0-2% slope. Small areas of this substratum can have sand to the depth of 6 feet below ground surface. The substratum is finer textured and has the ability to hold moisture, making it better suited for crop cultivation. Woodland stands in the area mainly consist of second-growth hardwoods, but loblolly pine dominates in areas that were once cultivated.

5.2. SOIL TARGETS

Given the current Site land use, contact with potentially contaminated soils would be limited to targets such as visitors, business operators, customers, trespassers, adjacent property owners and migratory animals. There are no daycare facilities or schools within the 200 foot soil exposure pathway. The closest daycare is one mile east of the Site and the closest school is 0.17 miles east of the site. According to 2000 census data, there are approximately 454 people residing within a quarter mile of the Site, and approximately 3,020 people within one mile of the Site.

5.3. SOIL ANALYTICAL RESULTS

VOCs, SVOCs, pesticides and PCBs were not detected in the shallow or deep soil samples selected for confirmatory analysis at concentrations in excess of regulatory standards. VOC analytical results in soil are summarized in Table 2. SVOC analytical results in soil are summarized in Table 3. Pesticide and PCB analytical results in soil are summarized in Table 4.

Iron was detected in soil samples PPMW-03D, PPSB-01D and PPSB-04D at concentrations exceeding its DNREC URS in a Critical Water Resource Area for Unrestricted Use. Concentrations did not exceed the DNREC URS in a Critical Water Resource Area for Restricted Use, or the EPA RSLs for Residential or Industrial use. Other metals were not detected at concentrations in excess of applicable standards. Metals analytical results for soil are summarized in Table 5.

Soil analytical results are provided in Appendix F.

6. GROUNDWATER EXPOSURE PATHWAY

6.1. HYDROGEOLOGIC SETTING

6.1.1.REGIONAL HYDROGEOLOGIC SETTING

Information on the hydrogeologic setting was obtained from the Delaware Geological Survey, and information from the DNREC Division of Water Resources. According to information reviewed, the Site is located entirely within the Atlantic Coastal Plain physiographic province. The sedimentary beds gently dip southeast toward the Atlantic Ocean. The maximum total thickness of sediments is 4,200 feet in the northern portion of the Atlantic Coastal Plain and 5,200 feet thick in the southeastern portion. The general elevation of the Site is 10-20 feet above mean sea level.

The Procino Plating Site is situated on Nanticoke deposits of the area. The Nanticoke deposits consist of brown to light gray, fine- to medium-grained sand. The deposits are finely laminated to structure-less gray to brown clayey sandy silt, silty clayey sand and rare beds of gravelly coarse-to medium-grained sand. Some areas consist of shelly sandy silt, and sandy clayey silt with woody fragments. The Nanticoke deposits unconformably overlie the Pliocene aged Beaverdam Formation.

The Beaverdam Formation consists of light gray to white coarse- to very coarse-grained sand with beds of fine- to medium-grained sand. There is often a silt to clayey silt matrix in the area which can appear white when brought to the surface. Beds of sandy silt, clayey sandy silt, and clayey silt are common. The thickness of this Formation can be 75 to 100 feet. The Beaverdam

Formation is within the unconfined Columbia aquifer. This aquifer has a poor to excellent yield and minor confining beds.

The Cat Hill Formation (sometimes called Manokin Formation) underlies the Beaverdam Formation in the area of the Site, and contains the Manokin Aquifer. This formation is subdivided into subunits A and B. Subunit A consist of gray, blue-gray, and brown-gray silty clayey sand and silty sand with scattered lignite. Subunit B is made up of light to medium gray, or yellow-orange to red-orange, medium- to fine- and course-grained quartz sand with common beds of gravelly sand, and less common beds of clayey to silty sand. The thickness of the Cat Hill Formation can vary from a feather edge to 50 feet thick. The St. Mary's Formation conformably underlies Subunit A and is gradational into Subunit B.

The St. Mary's Formation is made up of blue-gray, green-gray, or gray silty sandy clay, clayey sandy silt, and silty clay, with beds of fine- to medium-grained quartz sand, and fine- to medium-grained gravel in a mud matrix. This formation can be up to 110 feet thick.

6.1.2.LOCAL HYDROGEOLOGIC SETTING

Based on the review of the well logs generated during the drilling of monitoring wells, the shallow geology beneath the Site can generally be described as tan, brown and orange fine to medium grained sands to a depth of approximately 18 feet below ground surface underlain by tan to gray medium to coarse grained sands to a depth of at least 20 feet below ground surface.

Based on water level information gathered from site monitoring wells installed during this SI, shallow groundwater is present between 8 and 11 feet below the ground surface (bgs), and groundwater flow is towards the south-southwest (Figure 14). Monitoring well construction information, survey information, and calculated groundwater elevations are summarized in Table 1. Soil boring logs area included in Appendix B.

6.2. GROUNDWATER SETTING AND TARGETS

The Site is connected to the Town of Blades public water supply. The nearest public well is approximately 0.20 miles north of the Site. The nearest offsite domestic well is approximately 110 feet from the western border of the Site.

Information gathered for the PA at the Site indicated that approximately 4,698 individuals could be using the groundwater for drinking purposes within four miles of the Site. This number may be higher due to wells constructed prior to 1970, when DNRECs well permitting program was initiated. A community located to the west of the Site is not connected to a public water supply. Each tax parcel contains its own private water supply well.

There are 18 well head protection areas within four miles of the Site. In addition, the Site is located within a well head protection area for the Town of Blades water supply wells.

6.3. GROUNDWATER ANALYTICAL RESULTS

6.3.1.ONSITE GROUNDWATER

Chloroform was detected in the groundwater sample collected from site monitoring well PPMW-06 at an estimated concentration of 0.9 micrograms per liter (ug/l). The DNREC Groundwater URS for chloroform is 0.1 ug/l. The concentration is below the EPA RSL for Tapwater and the

EPA MCL. Chloroform is also a common laboratory artifact. Other VOCs were not detected at concentrations in excess of regulatory standards. VOC analytical results in groundwater are summarized in Table 6.

SVOCs were not detected in groundwater samples collected from the Site monitoring wells at concentrations in excess of regulatory standards. SVOC analytical results in groundwater are summarized in Table 7.

Dieldrin was detected in the groundwater sample collected from monitoring wells PPMW-03, PPMW-05 and the PPMW-01duplicate sample at concentrations exceeding its EPA RSL for Tapwater and the DNREC Groundwater URS. An EPA MCL does not exist for Dieldrin. Heptachlor Epoxide was detected in the groundwater sample collected from monitoring well PPMW-03 at a concentration exceeding its EPA RSL for Tapwater and the DNREC Groundwater URS, but below its EPA MCL. PCBs were not detected in the groundwater samples collected from Site monitoring wells. Pesticide and PCB analytical results in groundwater are summarized in Table 8.

Aluminum was detected in the total metals sample collected from monitoring well PPMW-01 and The PPMW-01 duplicate sample at a concentration exceeding its DNREC groundwater URS, but below its EPA RSL for Tapwater. An EPA MCL does not exist for aluminum. Aluminum was not detected in the dissolved metals sample from the same well or the duplicate. Nickel was detected in the total and dissolved metals sample collected from monitoring well PPMW-06 at a concentration exceeding its DNREC Groundwater URS, but below its EPA RSL for Tapwater. An EPA MCL does not exist for Nickel. Chromium was detected in the total and dissolved groundwater sample collected from monitoring well PPMW-06 at a concentration in excess of its DNREC Groundwater URS and its EPA MCL. Cyanide was not detected in any of the groundwater samples collected from site monitoring wells. Metals analytical results in ground water are summarized in Table 9.

Groundwater analytical results are provided in Appendix G.

6.3.2.OFFSITE GROUNDWATER/DRINKING WATER

Barium was detected in six of the private water supply well samples collected in May 2010 and April 2011 at concentrations exceeding its DNREC Groundwater URS, but below its EPA RSL for Tapwater and its EPA MCL. Manganese was detected in 11 of the private water supply well samples collected in May 2010 and April 2011 at concentrations in excess of its DNREC Groundwater URS and its EPA Secondary MCL, but below its EPA RSL for Tapwater. Zinc was detected in the sample collected from one private water supply well in May 2010 at a concentration exceeding is DNREC Groundwater URS and its EPA Secondary MCL, but below its EPA RSL for Tapwater. The same supply well was sampled again in April 2011, and although present, the concentration of zinc was below all applicable standards.

Cyanide was detected in one drinking water sample collected in April 2011. Although the concentration was low (0.02 mg/l, or 20 ug/l), it merits mentioning due to the uncommon nature of the detection. Review of the data and chromatograms by the DNREC-SIRS Senior Chemist indicated that the detected concentration was not an artifact of the laboratory analysis, and that the cyanide was present in the sample. The water supply well that the sample was collected from is screened at a depth of 43 to 48 feet below ground surface.

Analytical results of drinking water well samples is summarized in Table 10, and provided in Appendix H. The locations of the samples are shown on Figure 13.

7. SURFACE WATER AND SEDIMENT EXPOSURE PATHWAY

7.1. HYDROLOGIC SETTING

The Town of Blades is situated inside a bend of the Nanticoke River, directly across from the Town of Seaford, Delaware. The direction of surface water flow, based on topography and site characteristics, appears to be westerly toward the Nanticoke River and the Chesapeake Bay.

The Nanticoke River is approximately 1,300 feet from the western border of the site. The Nanticoke River winds through Delaware and Maryland until it reaches Chesapeake Bay. According to Federal Emergency Management (FEMA) information, the Site lies outside the 500 year flood zone.

7.2. SURFACE WATER AND SEDIMENT SETTING

A review of the Delaware Natural Heritage and Endangered Species Program (NHESP) database was conducted to identify any possible state or federally listed threatened or endangered plants, animals or natural communities within the 15 mile surface water pathway from the Site. According to NHESP, there are currently no rare state or federally listed plants, animals or natural communities at the Site. However, there is numerous state and federally threatened/endangered species listed approximately 3-5 miles downstream and upstream from the Site. There are additional species located within the 15 mile downstream and seven (7) mile upstream extent of the surface water pathway for tidal water bodies.

According to the Surface Water Branch, there are no surface water intakes for potable water in Sussex County.

7.3. SURFACE WATER AND SEDIMENT ANALYTICAL RESULTS

Because surface water and sediment bodies are not located onsite, no surface water or sediment samples were collected during this SI. However, the potential exists, through groundwater discharge, for Site related contaminants to impact the sediments in the Nanticoke River.

8. AIR EXPOSURE PATHWAY

8.1. AIR TARGETS

Site visitors, business operators, customers, trespassers, and adjacent property owners are possible air targets. There are 6 daycares and 11 schools within a four (4) mile air target pathway. The closest daycare is one mile east of the Site and the closest school is 0.17 miles east of the site. According to 2000 census data, there are approximately 454 people residing within a quarter mile of the Site, and approximately 3,020 people within one mile of the Site, and approximately 19,380 people within the four (4) mile air exposure pathway of the Site.

Exposure to site contaminants is not likely to follow a soil or ground-water to air pathway.

8.2. AIR ANALYTICAL RESULTS

A formal air sampling program was not conducted as part of this investigation. Air monitoring was, however, preformed during sampling as part of the Health and Safety Plan (HASP) utilizing a PID. There were no PID readings above background levels detected during sampling activities.

9. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

9.1. SUMMARY

Between May 24 and 26, 2011, DNREC-SIRS personnel collected twenty six (26) soil samples, including both shallow and deep samples, and installed six (6) groundwater monitoring wells at the Site. Groundwater samples were collected from the site monitoring wells on June 16 and 17, 2011. All soil samples were screened in the DNREC-SIRS laboratory for VOCs, SVOCs, pesticides, PCBs, and total metals prior to choosing samples for confirmatory analysis by a fixed laboratory. Each of the 6 groundwater samples (and QA/QC samples) was submitted to a fixed laboratory for analysis. A total of 5 soil samples were analyzed for the full US EPA TAL/TCL analyte list based on screening laboratory results. Each of the groundwater samples was analyzed for the full US EPA TAL/TCL analyte list.

On May 19, 2010 (during completion of the Preliminary Assessment), DNREC-SIRS and ODW personnel collected drinking water samples from four (4) residences located to the west of the Site. On April 28, 2011, twelve (12) drinking water samples were collected from the neighborhood located to the west of the Site.

Iron was detected in soil samples PPMW-03D, PPSB-01D and PPSB-04D at concentrations exceeding its DNREC URS in a Critical Water Resource Area for Unrestricted Use. Concentrations did not exceed the DNREC URS in a Critical Water Resource Area for Restricted Use, or the EPA RSLs for Residential or Industrial use. Other metals were not detected at concentrations in excess of applicable standards.

VOCs, SVOCs, Pesticides and PCBs were not detected in the shallow or deep soil samples selected for confirmatory analysis at concentrations in excess of regulatory standards.

Chloroform detected in the groundwater sample collected from site monitoring well PPMW-06 at an estimated concentration of 0.9 micrograms per liter (ug/l). The DNREC Groundwater URS for chloroform is 0.1 ug/l. The concentration is below the EPA RSL for Tapwater and the EPA MCL. Chloroform is also a common laboratory artifact. Other VOCs were not detected at concentrations in excess of regulatory standards.

SVOCs were not detected in groundwater samples collected from the Site monitoring wells at concentrations in excess of regulatory standards.

Dieldrin was detected in the groundwater sample collected from monitoring wells PPMW-03, PPMW-05 and the PPMW-01duplicate sample at concentrations exceeding its EPA RSL for Tapwater and the DNREC Groundwater URS. An EPA MCL does not exist for Dieldrin. Heptachlor Epoxide was detected in the groundwater sample collected from monitoring well PPMW-03 at a concentration exceeding its EPA RSL for Tapwater and the DNREC Groundwater URS, but below its EPA MCL. PCBs were not detected in the groundwater samples collected from Site monitoring wells.

Aluminum was detected in the total metals sample collected from monitoring well PPMW-01 and The PPMW-01 duplicate sample at a concentration exceeding its DNREC groundwater URS, but below its EPA RSL for Tapwater. An EPA MCL does not exist for aluminum. Aluminum was not detected in the dissolved metals sample from the same well or the duplicate. Nickel was detected in the total and dissolved metals sample collected from monitoring well PPMW-06 at a concentration exceeding its DNREC Groundwater URS, but below its EPA RSL for Tapwater. An EPA MCL does not exist for Nickel. Chromium was detected in the total and dissolved groundwater sample collected from monitoring well PPMW-06 at a concentration in excess of its DNREC Groundwater URS and its EPA MCL. Cyanide was not detected in any of the groundwater samples collected from site monitoring wells.

Barium was detected in six of the private water supply well samples collected in May 2010 and April 2011 at concentrations exceeding its DNREC Groundwater URS, but below its EPA RSL for Tapwater and its EPA MCL. Manganese was detected in 11 of the private water supply well samples collected in May 2010 and April 2011 at concentrations in excess of its DNREC Groundwater URS and its EPA Secondary MCL, but below its EPA RSL for Tapwater. Zinc was detected in the sample collected from one private water supply well in May 2010 at a concentration exceeding is DNREC Groundwater URS and its EPA Secondary MCL, but below its EPA RSL for Tapwater. The same supply well was sampled again in April 2011, and although present, the concentration of zinc was below all applicable standards.

Cyanide was detected in one drinking water sample collected in April 2011. Although the concentration was low (0.02 mg/l, or 20 ug/l), it merits mentioning due to the uncommon nature of the detection. Review of the data and chromatograms by the DNREC-SIRS Senior Chemist indicated that the detected concentration was not an artifact of the laboratory analysis, and that the cyanide was present in the sample. The water supply well that the sample was collected from is screened at a depth of 43 to 48 feet below ground surface.

Surface water, sediment and air samples were not collected as part of this SI.

9.2. CONCLUSIONS

The Site has been operational as a metal plating operation since the 1980's. Soil and groundwater data generated through this assessment was evaluated by DNREC-SIRS from an industrial use, residential use and drinking water use standpoint since the site is surrounded by residential properties, and because area residents hydraulically downgradient of the Site utilize groundwater for drinking water purposes.

Iron detected in the soil samples is well within the range of typical Delaware background soil concentrations (3,000 to 22,000 mg/kg) as reported in the HSCA Remediation Standards Guidance. Therefore it is not considered a potential contaminant of concern (COC) by DNREC-SIRS.

Since dieldrin and heptachlor epoxide were detected in groundwater at concentrations exceeding EPA and DNREC screening levels, they should be considered potential COCs in groundwater.

The chromium detected in Site monitoring well PPMW-06 was reported at concentrations around 10 times the DNREC URS and the EPA MCL, and is considered a potential COC in groundwater by DNREC-SIRS.

Nickel is commonly used for plating, and was detected in the groundwater samples from one Site monitoring well. Although the concentrations do not exceed EPA Screening Levels, DNREC-SIRS considers Nickel a potential COC in groundwater.

The iron detected in dissolved groundwater samples from one well (and its duplicate) at the site, although above DNREC URS values, is not considered a COC because iron is commonly detected at slightly elevated concentrations throughout the State.

Manganese was the only metal detected in the drinking water samples (from several wells) collected at a concentration in excess of its MCL or Secondary MCL. Due to the lack of health related effects from manganese, it is not considered a COC in the drinking water.

9.3. RECOMMENDATIONS

DNREC-SIRS recommends additional assessment at the Site in the form of a remedial investigation (RI) to further evaluate the horizontal and vertical extent of chromium detected in the groundwater from monitoring well PPMW-06 at concentrations exceeding EPA MCLs. In addition, the presence of pesticides in monitoring wells PPMW-01, PPMW-03 and PPMS-05 should be evaluated further since concentrations exceed DNREC and EPA screening levels.

It should also be noted that only shallow groundwater was evaluated during this SI. The uncommon detection of cyanide in an offsite drinking water well from a depth of between 43 and 48 feet below ground surface, coupled with the fact that 1) cyanide containing solutions are commonly used in plating operations, and 2) a polyethylene tank was noted on the property with the words "Cyanide Treatment 2" stenciled on the side, raises concern for an undetected release from the Site. The presence of any Site related compound at a depth greater than approximately 20 feet below ground surface was not evaluated as part of the SI. Therefore, DNREC-SIRS recommend further evaluation groundwater below a depth of 20 feet at the site. In addition, it is recommended that additional private waters supply wells be tested and analyzed for the presence of total metals and cyanide, as indicated on Figure 14.

Lastly, information reviewed by DNREC-SIRS in relation to sediment contamination in the Nanticoke River (DNREC, 1997) indicates that the concentrations of metals in sediments is much greater downstream of Seaford/Blades than upstream. Since the Procino Plating facility is located less than 1,500 feet hydraulically upgradient of the river, the potential exists for site related contaminants to enter the river and impact sediments through groundwater discharge. Without additional information related to the groundwater quality at a depth greater than 20 feet below ground surface, Site related impact to the sediment in the Nanticoke River cannot be ruled out.

The recommended Remedial Investigation can be conducted through DNREC-SIRS' Voluntary Cleanup Program (VCP).

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TABLES

Procino Plating DE-0344

Table 1
Monitoring Well Information and Groundwater Elevations
Procino Plating (DE-0344)
Blades, Delaware

Monitoring Well ID	Well Permit Number	Construction Date	Well Diameter (inches)	Well Depth (ft)	Screened Interval (ft)	Top of Casing Elevation (ft)	Top of Ground Elevation (ft)	Measured Depth To Water (ft below top of casing) 5/26/2011	Groundwater Elevation (ft)
PPMW-01	235312	5/24/2011	1	18	8 - 18	100	100.27	8.58	91.42
PPMW-02	235308	5/24/2011	1	18	8 - 18	99.86	100.23	8.30	91.56
PPMW-03	235307	5/24/2011	1	18	8 - 18	101.23	101.60	9.50	91.73
PPMW-04	235309	5/25/2011	1	18	8 - 18	103.41	103.60	11.56	91.85
PPMW-05	235310	5/25/2011	1	19	9 - 19	102.87	103.12	11.18	91.69
PPMW-06	235311	5/25/2011	1	18	8 - 18	102.03	102.27	10.43	91.60

Notes:

Wells constructed using one inch Geoprobe pre-pack well screens and bentonite seals.

Wells were surveyed by DNREC-SIRS with an arbitrary vertical datum of 100 feet at the PPMW-01 top of casing.

Table 2 Summary of Soil Analytical Results - VOCs Procino Plating (DE-0344) Blades, Delaware

Sample Sample Cate Jud		************		·····	PPMKV-03 D 5/24/2011 mg/ka	PPMW-06 D 5/25/2011 ma/ka			
			100						
	٧o	atile Organic C	ompounds by Metho	c SW8260					
1,1,1-TRICHLOROETHANE	8700	38000	20	20	NO	ND	ND	ND	ND
1.1.2.2-TETRACHLOROETHANE	0.56	2.8	0.2	0.2	ND .	1 ND	ND	ND	ND
I.1.2-TRICHLORO-1.2,2-TRIFLUOROETHANE	43000	180000	640	640	NO	ND.	ND	ND	ND
.1.2-TRICHLOROETHANE	1.1	5.3	0.5	0.5	NO	ND NO	ND	NO	ND
1-DICHLOROETHANE 1-DICHLOROETHENE	3.3 240	17	8	0.7	ND NO	ND	ND ND	ND	ND ND
2.4-TRICHLOROBENZENE	240	99	0.07 28	28	NO NO	ND ND	ND ND	ND ND	ND ND
27-TRICHIOROBENZENE 2-DIBROMO-3-CHLOROPROPANE	0.0054	0.069	0.02	0.02	ND ND	ND	ND ND	ND ND	ND
2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.0034	0.009	0.008	0.02	ND ND	ND ND	ND ND	ND ND	ND NO
2-DICHLOROBENZENE	1900	9800	60	60	ND	ND ND	ND	ND	ND
2-DICHLOROETHANE	0.43	2.2	0.4	0.5	ND ND	T ND	ND	ND	ND
2-DICHLOROPROPANE	~~~~	4.7	0.5	0.5	ND ND	ND ND	ND	ND	ND
1,3-DICHLOROBENZENE	NCA	NCA .	61	61	ND	ND	ND	ND	ND
4-DICHLOROBENZENE	2.4	12	10	10	ND	ND	ND	ND	ND
-HEXANONE	210	1400	15	15	ND	ND	ND	ND	ND
ACETONE	61000	630000	6	6	ND 8	ND	ND	ND	ND
ENZENE	1.1	5,4	0.5	0.5	ND	ND	ND	ND	ND
ROMODICHLOROMETHANE	0.27	1.4	10	10	ND	ND	NO.	ND	ND
ROMOFORM	62	220	10	10	ND	ND	ND	ND	ND
ROMOMETHANE	7.3	32	1	11	NO NO	NO.	ND	ND	ND
ARBON DISULFIDE	820	3700	10	10	NO	NO.	ND	ND	ND
CARBON TETRACHLORIDE	0.61	<u>3</u>	0.3	0.5	ND.	ND	ND	ND	ND
THLOROBENZENE	290	1400	10	10	NO NO	<u> </u>	ND	ND	ND
THLOROETHANE THLOROFORM	1.5000 0.29	61000	0.4	0.4	ND ND	NO ND	ND	ND ND	ND ND
CHLOROMETHANE	120	1.5 500	0.3	0.3	NO NO	ND ND	ND ND	ND ND	ND ND
CIS-1, 2-DICHLOROETHENE	160	2000	0.6	0.3	ND ND	NO NO	ND ND	ND	ND
CIS-1.3-DICHLOROPROPENE	NCA NCA	NCA	0.008	0.008	ND ND	ND	ND	ND	ND:
CYCLOHEXANE	7000	29000	1000	1800	3 ND	NO	ND .	NO NO	0.016)
DIBROMOCHLOROMETHANE	0.68	3.3	0.01	0.01	ND ND	ND ND	NO	ND ND	ND ND
DICHLORODIFLUOROMETHANE	94	400	100	100	ND	ND	ND	ND ND	ND
THYLBENZENE	5.4	27	70	70	ND	ND	ND	ND	ND
SOPROPYLBENZENE (CUMENE)	2100	11000	110	110	ND ND	ND	ND	ND	ND
1,P-XYLENE (SUM OF ISOMERS)	NCA	NCA	420	420	ND	ND	NO.	ND	ND
METHYL ACETATE	78000	1000000	61	61	€ NO	ND.	NO	: NO	ND
METHYL ETHYL KEYONE (2-BUTANONE)	28000	200000	19	19	ND	J. NO	NO.	ND ND	ND ·
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	5300	53000)	1	ND	NO	ND	. ND	ND.
MEYHYL TERT-BUTYL ETHER (MTBE)	43	220	2	2	NO	I ND	NO	ND.	ND
METHYLCYCLOHEXANE	NCA	NCA	NCA NCA	NCA NCA	ND	ND	0.036 3	ND	0.05 3
METHYLENE CHLORIDE	11	53	0.5	0.5	ND	NO NO	0.023.1	0.023 3	0.021 1
O-XYLENE (1, 2-DIMETHYLBENZENE)	690	3000	410	410	NO NO	ND	ND	NO	ND.
STYRENE	6300	36000	24	24	ND	NO NO	ND	ND	ND
TETRACHLOROETHENE	0.55	2.6	0.5	0.5	ND ND	ND NO	ND	NO.	L ND
FOLUENE TRANS 1.2 OYOULODOSTURNE	5000	45000	100	100	ND NO	ND	ND	NO NO	NO.
TRANS-1, 2-DICHLOROETHENE TRANS-1, 3-DICHLOROPROPENE	150	690	0.008	10	ND ND	ND NO	ND	ND	ND
TRICHLOROETHENE	NCA 2.8	NCA 14	0.5	0.008	ND ND	NO NO	ND ND	ND ND	ND ND
TRICHLOROE I HENE TRICHLOROFLUOROMETHANE	790	3400	200	200	ND ND	NO	ND.	ND	NO NO
VINYL CHLORIDE	0.06	1.7	0.03	0.2	ND ND	ND NO	ND ND	ND ND	ND ND
XYLENES, TOTAL	630	2700	420	420	8 NO	NO.	ND	ND ND	ND ND

Notes: mg/kg - milligrams ber kilogram NCA - No Criteria Available

ND - Not Detected

J - Estimated Concentration
DNREC URS CWRA - DNREC Uniform Risk Based Remediation Standard for Protection of Human Health in a Critical Water Resource Area

Table 3 Summary of Soil Analytical Results - SVOCs Procino Plating (DE-0344) Blades, Delaware

Sample		***************************************				PPMW-06 D			
Sample Date Unit					5/24/2011 mg/kg	5/25/2011 ma/kg	5/24/2011 mg/kg	5/26/2011 mg/kg	5/25/201 ma/kg
Color on					1 DAYRY		inver.		114/44
Chronical Plans	See See See		(Brighten et 194	Charles Sections					
		10000		100 marks	I	<u> </u>	1		1
1,1-BIPHENYL	51	zolanie urgani 210	c Compounds by Met 3		ND	ND	ND	IND	ND
1,2,4-TRICHLOROBENZENE	22	99	28	28	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE 1,3-DICHLOROBENZENE	1900 NCA	9800	60	60		ND ND	ND	ND ND	ND ND
1,4-DICHLOROBENZENE	2.4	NCA 12	10	61 10	-	ND	ND ND	ND	ND
2,4,5-TRICHLOROPHENOL	6100	62000	220	220		ND	ND	ND	ND
2,4,6-TRICHLOROPHENOL 2,4-DICHLOROPHENOL	180	160 1800	2 2	2	*********	ND ND	ND ND	ND ND	ND ND
2,4-DIMETHYLPHENOL	1200	12000	7	7		ND	ND	ND	ND
2.4-DINITROPHENOL	120	1200	0.7		ND	ND	ND	ND	ND
2.4-DINITROTOLUENE 2.6-DINITROTOLUENE	1.6 61	5.5 620	0.7 0.4	0.7 0.4	ND ND			ND ND	ND ND
2-CHLORONAPHTHALENE	6300	82000	620	620	ND	ND	ND	ND	ND
Z-CHLORÖPHENOL Z-METHYLNAPHTHALENE	390 310	5100 4100	1	4	·	ND ND	ND ND	ND ND	ND ND
2-METHYLPHENOL (O-CRESOL)	3100	31000	18	18		ND	,		ND
2-NITROANILINE	610	6000	0.02	***************************************		ND			ND
2-NITROPHENOL 3.3-DICHLOROBENZIDINE	NCA 1.1	NCA 3.8	NCA I			ND ND		ND ND	ND
3-NTROANILINE	NCA	NCA	NCA	NCA	ND	ND	ND	ND	ND
4,6-DINITRO-2-METHYLPHENOL	4,9	49	0.04			ND		ND ND	ND ND
4-BROMOPHENYL PHENYL ETHER 4-CHLORO-3-METHYLPHENOL	NCA 6100	NCA 62000	NCA NCA			ND ND			ND ND
4-CHLOROANILINE	2.4	8.6	2	2	ND	ND	ND	ND	ND
4-CHLOROPHENYL PHENYL ETHER 4-METHYLPHENOL (P-CRESOL)	NCA 310	NCA 3100	NCA 2			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			ND ND
4-NITROANILINE	24	86	NČA .						ND
4-NITROPHENOL	NCA	NCA	6						ND
ACENAPHTHENE ACENAPHTHYLENE	3400 NCA	33000 NCA	270 NCA						ND ND
ACETOPHENONE	7800	100000	0.0004				ND	ND	ND
ANTHRACENE	17000	170000	1000						ND ND
ATRAZINE BENZALDEHYDE	2.1 7800	7.5 100000	0.3 37						ND
BENZO(A)ANTHRACENE	0.15	2.1	0.9	8	ND	ND			ND
BENZO(A)PYRENE BENZO(B)FLUORANTHENE	0.015 0.15	0.21 2.1	0.09	*************			,		ND ND
BENZO(G,H,I)PERYLENE	NCA	NCA	NCA NCA						ND
BENZO(K)FLUORANTHENE	1.5	21	9						ND
BIS(2-CHLOROETHOXY) METHANE BIS(2-CHLOROETHYL)ETHER (2-CHLOROETHYL ETHER).	180 0.21	1800 1	NCA 0.0001			ND ND			ND ND
BIS(2-CHLOROISOPROPYL) ETHER	4.6	22	9				ND	ND	ND
BIS(Z-ETHYLHEXYL) PHTHALATE	35	120	46						ND ND
BUTYL BENZYL PHTHALATE CAPROLACTAM	260 31000	910 310000	930 180	5000 180		ND ND			ND
CARBAZOLE	NCA	NCA	0.3	0.3	ND	ND			ND
CHRYSENE DIBENZ(A,H)ANTHRACENE	15 0.015	0.21	87 0.09						ND ND
DISENZ(A,A)ANTHRACENE DISENZOFURAN	. 78	1000	0.09	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	·	ND	ND	ND	ND
DIETHYL PHTHALATE	49000	490000	500						ND ND
DIMETHYL PHTHALATE DI-N-BUTYL PHTHALATE	NCA 6100	NCA 62000	NCA NCA		*********				ND ND
DI-N-OCTYLPHTHALATE	NCA	NCA	7	7	ND	ND	ND	ND	ND
FLUORANTHENE FLUORENE	2300 2300	22000	310						ND ND
HEXACHLOROBENZENE	0.3	22000 1.1	300 0.4						ND ND
HEXACHLOROBUTADIENE	6.2	22	1	1	ND	ND			ND
IEXACHLOROCYCLOPENTADIENE IEXACHLOROETHANE	370 35	3700 120	10 0.6	***************************************	ARREST CONTRACTOR OF THE PROPERTY OF				ND ND
INDENO(1,2,3-C,D)PYRENE	0.15	2.1	0.6	8	ND]	ND	ND	ND	ND
SOPHORONE	510	1800	10						ND
NAPHTHALENE NITROBENZENE	3.6 4.8	18 24	5 0.04						ND
N-NITROSODI-N-PROPYLAMINE	0.069	0.25	0.001	0.001	ND DI	ND ON	ND	ND	ND
I-NITROSODIPHENYLAMINE	99	350	2					<u> </u>	ND
PENTACHLOROPHENOL PHENANTHRENE	0.89 NCA	2,7 NCA	5 1000						ND ND
PHENOL	18000	180000	400	400	ND	NO	ND	ND	ND
YRENE Jotes:	1700	17000	230	1700	ND	ND	ND I	ND	ND

Notes:
mg/kg - milligrams per kilogram
NCA - No Criteria Available
ND - Not Detected
DNREC URS CWRA - DNREC Uniform Risk Based Remediation Standard for Protection of Human Health in a Critical Water Resource Area

Table 4 Summary of Soil Analytical Results - Pesticides & PCBs Procino Plating (DE-0344) Blades, Delaware

Sample					PPMW-03 D	PPMW-06 D	PPSB-01 S	PPSB-04 D	PPSB-05 S
Sample Date					5/24/2011	5/25/2011	5/24/2011	5/26/2011	5/25/2011
Unit					mg/kg	ma/ka	mg/kg	mg/kg	mg/kg
	EFA RSI	LARS	DIVECTOR CRIVA	DIRECURS OFWA					
Clemical home	Residential	Industrial	Unrespoted use	Restricted like					
	(Marka)	maka	tricks.	mg/gr					
			sticides by Method SW				4		
ALDRIN	0.029	0.1	0.0004	0.0004	ND	ND	ND	ND	ND .
ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	0.077	0.27	0.001	0.001	ND	ND	ND	ND	ND
ALPHA ENDOSULFAN	NCA	NCA	NCA	NCA	ND	ND	ND	ND	0.027
ALPHA-CHLORDANE	NCA	NCA	NCA	NCA	ND	ND	ND	ND	0.033 P
BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	0.27	0.96	0.004	0.004	ND	ND	ND	ND	ND
BETA ENDOSULFAN	NCA	NCA	NCA	NCA	ND	ND	ND	ND	ND
DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	NCA	NCA	0.004	0.004	ND .	ND	ND	ND	ND
DIELDRIN	0.03	0.11	0.04	0.1	ND	ND	ND	ND	ND
ENDOSULFAN SULFATE	NCA	NCA	NCA NCA	NCA NCA	ND	ND	ND	ND	ND
ENDRIN	18	180	2	6	ND	ND	ND	ND	ND
ENDRIN ALDEHYDE	NCA	NCA	NCA	NCA	ND	ND	ND	ND	ND
ENDRIN KETONE	NCA	NCA	NCA	NCA	ND	ND	ND	ND	ND
GAMMA BHC (LINDANE)	0.52	2.1	0.07	0.07	ND	ND	ND	ND	ND
GAMMA-CHLORDANE	1.6	6.5	2	16	ND .	ND .	ND	ND	0.018
HEPTACHLOR	0.11	0.38	0.1	0.7	ND	ND	ND	ND	ND
HEPTACHLOR EPOXIDE	0.053	0.19	0.07	0.6	ND	ND	ND	ND	0.028
METHOXYCHLOR	310	3100	39	630	ND	ND	ND	ND	ND
P,P'-DDD	2	7.2	3	3	ND	ND	ND	ND	ND
P,P'-DDE	1.4	5.1	2	4	ND	ND	ND	ND	0.011
P,P'-DDT	1.7	7	2	12	- ND	ND	ND	ND	ND .
TOXAPHENE	0.44	1.6	0.6	1	ND	ND	ND	ND	ND
		Polychlorin	ated Biphenyls by Met	hod SW8082					
AROCLOR 1016	3.9	21	5	18	ND	ND	ND	ND	ND
AROCLOR 1221	0.14	0.54	0.3	0.5	ND	ND	ND	ND	ND
AROCLOR 1232	0.14	0.54	0.3	0.5	ND	. ND	ND	. ND	ND.
AROCLOR 1242	0.22	0.74	0.3	3	ND	ND	ND	ND	ND
AROCLOR 1248	0.22	0.74	0.3	3	ND	ND	ND	ND	ND
AROCLOR 1254	0.22	0.74	0.3	3	ND	ND	ND	ND	ND
AROCLOR 1260	0.22	0.74	0.3	. 3	. ND	ND	ND	ND	ND

Notes:

mg/kg - milligrams per kilogram

NCA - No Criteria Available

ND - Not Detected

P - The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported by the laboratory.

DNREC URS CWRA - DNREC Uniform Risk Based Remediation Standard for Protection of Human Health in a Critical Water Resource Area

Table 5 Summary of Soil Analytical Results - Metals Procino Plating (DE-0344) Blades, Delaware

Sample Sample Date Unit					PPMW-03 D 5/24/2011 ma/ka	PPMW-06 D 5/25/2011 ma/kg	PPSB-01 S 5/24/2011 ma/kg	PPSB-04 D 5/26/2011 mg/kg	PPSB-05 S 5/25/2011 mg/kg
Cleffica Ine	LEPAR Res	EPA RSL Industrial (Fig/kg)	DNREC URS CWRA Unrestricted Use (mg/kg)	DNREC URS CWRA Restricted Use (mg/kg)					
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ds by Method C200.7	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,			
ALUMINUM	77000	990000	7800	200000	4070	2750	5050	6110	2480
ANTIMONY	31	410	3	27	ND	ND	ND	ND.	ND
ARSENIC	0.39	1.6	11*	11*	ND	ND .	ND	ND	ND -
BARIUM	15000	190000	550	14000	ND	ND	ND	ND.	ND .
BERYLLIUM	160	2000	16	410	ND	ND	ND	ND	ND
CADMIUM	70	800	4	38	ND	ND	ND	ND	ND
CALCIUM	NCA	NCA	NCA	NCA	291	ND	2590	438	609
CHROMIUM, TOTAL	NCA	NCA	12000	310000	3.1	14.1	2.8	5.1	2.6
COBALT	23	300	22	22	ND	ND	ND	ND	ND
COPPER	3100	41000	310	8200	ND	2.2	1.5	1.4	8.7
IRON	55000	720000	2300	61000	2630	2010	3030	4410	1880
LEAD	400	800	400	1000	1.8	1.8	5.8	2.9	10.0
MAGNESIUM	NCA	NCA	NCA	NCA	ND	ND	273	328	ND
MANGANESE	1800	23000	160	4100	14.4	13.8	22.0	22.0	39.9
NICKEL	1500	20000	160	650	ND	ND	ND	ND	ND
POTASSIUM	NCA	NCA	NCA	NCA	ND	ND	ND	243	ND.
SELENIUM	390	5100	26	26	ND	ND	ND	ND	ND
SILVER	390	5100	39	84	ND	ND	ND	ND	ND
SODIUM	NCA	NCA	NCA	NCA	ND	ND	ND	ND	ND
THALLIUM	0.78	10	14	14	ND	ND	ND	ND	ND
VANADIUM	NCA	NCA	55	1400	ND	ND	ND	ND	ND
ZINC	23000	310000	2300	2300	4.5	3.7	7.1	6.6	14.6
			······································	ury by Method C245					
MERCURY	10	43	10	10	ND ND	ND	ND	ND	ND
			Cyana	de by Method SW90	ŽA			-	*
CYANIDE	1600	20000	160	200	ND	ND	ND	ND	ND

Notes:

mg/kg - milligrams per kilogram

* Delaware Background Concentration

NCA - No Criteria Available

ND - Not Detected

DNREC URS CWRA - DNREC Uniform Risk Based Remediation Standard for Protection of Human Health in a Critical Water Resource Area Shaded - Concentration exceeds DNREC URS CWRA for Unrestricted Use

Table 6 Summary of Groundwater Analytical Results - VOCs Procino Plating (DE-0344) Blades, Delaware

Location		***************************************		DDM	W-01	DDMIM, 03	PPMW-03	PPMW-04	PPMW-05	PPMW-06
				DUPI	PPMW01	PPMW02	PPMW03	PPMW04	PPMW05	PPMW06
Sample Sample Cate					6/16/2011		:	1		4
Sample Date						,		1		
Unit				ug/i	<u>ug/l</u>	<u>ug/l</u>	<u>ug/1</u>	nð\j	l ug/l	ug/I
	17.0	100	3446							
Cleates		Topweler	Continue							
		unit	100							
	Val	ole Omanic	Compounds by !	Method SW	1260				l	4
1,1,1-TRICHLOROETHANE	200	9100	200	ND	ND	ND	ND	ND	ND	ND
1.1.2.2-TETRACHLOROETHANE	NCA	0.067	0.05	ND	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	NCA	59000	5900	ND	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	5	0.24	0.2	ND	ND	ND	ND ND	ND	ND	ND
1,1-DICHLOROETHANE	NCA	2.4	81	ND	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	7	340	0.04	ND	ND	ND	ND	ND	ND	ND
1, 2, 4-TRICHLOROBENZENE	70	2.3	70	T ND	ND.	ND	ND	ND	ND	ND
1.2-DIBROMO-3-CHLOROPROPANE	0.2	0.00032	0.05	ND ND	ND ND	ND ND	ND	ND	ND	ND
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.05	0.0065	0.001	ND ON	ND	ND ND	ND	ND	ND	. ND
1.2-DICHLOROBENZENE	600	370	64	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	0.15	0.1	ND	ND	ND ND	ND	ND	ND ND	ND ND
1,2-DICHLOROPROPANE	. S	0.39	0.2	ND	ND	ND	ND	ND	ND	ND
1 3-DICHLOROBENZENE	NCA	NCA	0.5	ND	ND	ND	ND	ND	ND	ND
1.4-DICHLOROBENZENE	75	0.43	0.4	ND	ND	ND	ND	ND	ND	ND
2-HEXANONE	NCA	47	150	ND	ND	ND	ND	ND	ND	ND
ACETONE	NCA NCA	22000	61	ND	ND	ND ND	ND	ND	ND	ND
BENZENE	5	0.41	0.4	ND	ND	ND ND	ND	ND	ND	ND
BROMODICHLOROMETHANE	NCA	0.12	0.2	ND	ND	ND	ND	ND	ND	ND
BROMOFORM	NCA	8.5	8	ND	ND	ND	ND	ND	ND	ND
BROMOMETHANE	NCA	8.7	9	ND	ND	ND	ND	ND	ND	ND
CARBON DISULFIDE	NCA	1000	100	ND	ND	ND	ND	ND I	ND	ND
CARBON TETRACHLORIDE	5	0.44	2	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	91	11	ND	ND	ND	ND	ND	ND	ND
CHLOROETHANE	NCA	21000	4	ND	ND	ND	ND	ND	ND	ND
CHLOROFORM	NCA	0.19	0.1	ND	ND	ND	ND	ND	ND	0.9.2
CHLOROMETHANE	NCA	190	2	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	73	61	ND	ND	ND	ND	ND	ND	ND
CIS-1,3-DICHLOROPROPENE	NCA	NCA	80.0	ND ND	ND	ND	ND	ND	ND	ND
CYCLOHEXANE	NCA	13000	18000	ND	ND	ND	ND	ND	ND I	ND
DIBROMOCHLOROMETHANE	NCA	0.15	0.1	ND	ND	ND	ND	ND	ND	ND
DICHLORODIFLUOROMETHANE	NCA	200	350	ND	NO	ND	ND	ND	ND	NO
ETHYLBENZENE	700	1.5	700	ON	ND	ND	ND	ND	0.4 J	ND
ISOPROPYLBENZENE (CUMENE)	NCA	680	66	ND	ND	ND	ND	0.4 3	ND	ND
M,P-XYLENE (SUM OF ISOMERS)	NCA	NCA	1200	ND	ND	ND	ND	ND	ND	ND
METHYL ACETATE	NCA	37000	610	ND	ND	ND	ND	ND	ND	ND
METHYL ETHYL KETONE (2-BUTANONE)	NCA	7100	190	ND	ND	ND	ND	ND	ND	ND
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	NCA	2000	14	ND	ND	ND	ND	ND	ND	ND
Methyl tert-Butyl Ether (MTBE)	NCA	12	20	ND	ND	ND	ND	ND	ND	ND
METHYLCYCLOHEXANE	NCA	NCA	NCA	ND	ND	ND	ND	ND	ND	ND
METHYLENE CHLORIDE	5	4.8	4	ND	ND	ND	ND	ND	ND	ND
O-XYLENE (1,2-DIMETHYLBENZENE)	NCA	200	1200	ND	ND	ND	ND .	ND	ND	ND
STYRENE	100	1600	100	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	0.11	1	ND	ND	ND	NO	ND	ND	ND
TOLUENE	1000	2300	750	ND	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHENE	100	110	100	ND	ND	ND	ND	ND	ND	ND
TRANS-1,3-DICHLOROPROPENE	NCA	NCA	0.08	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	2	2	ND	ND	ND	ND	ND	ND	ND
TRICHLOROFLUOROMETHANE	NCA	1300	1300	ND	ND .	ND	ND	ND	ND	ND
/INYL CHLORIDE	2	0.016	0.02	ND	ND	ND	ND	ND	ND	ND
(YLENES, TOTAL	10000	200	1200	ND.	ND	ND	ND	ND	ND	ND
Votes ·	·······					eeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeee				

Notes: ug/l - micrograms per liter NCA - No Criteria Available

ND - Not Detected

DNREC URS Groundwater - DNREC Uniform Risk Based Remediation Standard for Protection of Human Health Shaded - Concentration exceeds DNREC Groundwater URS

<u>Underline</u> - Concentrations exceeds EPA Regional Screening Level for Tapwater

Table 7 Summary of Groundwater Analytical Results - SVOCs Procino Plating (DE-0344) Blades, Delaware

Location				PPM	W-01	PPMW-02	PPMW-03	PPMW-04	PPMW-05	PPMW-06
Sample				DUP1 6/16/2011	PPMW01 6/16/2011	PPMW02 6/16/2011	PPMW03 6/16/2011	PPMW04 6/16/2011	PPMW05 6/17/2011	PPMW06 6/17/2011
Sample Date Unit				ug/1	ug/l	ug/l	ug/l	UG/1	ug/l	ug/l
Spring)						-	****	-		
	Seri	volatie Organi	Compounds	Method Sw	8270					
1,1-BIPHENYL	NCA	0,83	30	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROSENZENE	70	2.3	70	ND ND	ND ND	ND	ND ND	ND.	ND.	ND ND
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE	600 NCA	370 NCA	0.5	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND
1,4-DICHLOROBENZENE	75	0.43	0.4	ND	ND	ND	ND	ND	ND	ND
2,4,5-TRICHLOROPHENOL	NCA	3700	370	ND	ND	ND	ND	ND	ND	ND
2,4,6-TRICHLOROPHENOL 2,4-DICHLOROPHENOL	NCA NCA	6.1	20	ND ND	ND ND	ND ND	ND ND	ND NO	ND ND	ND ND
2,4-DIMETHYLPHENOL	NCA	730	73	ND ND	ND	ND	ND	ND ND	ND	ND
2,4-DINITROPHENOL	NCA	73	7	ND	ND	ND	ND	ND	ND	ND
2,4-DINITROTOLUENE	NCA	0.22	<u> </u>	ND	ND	ND	ND	ND	ND	ND
2.6-DINITROTOLUENE 2-CHLORONAPHTHALENE	NCA NCA	37 2900	49	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
2-CHLOROPHENOL	NCA	180	30	ND ND	ND	ND	ND	ND ND	ND	. ND
Z-METHYLNAPHTHALENE	NCA	150	12	ND	ND	ND	ND	ND	ND	ND
2-METHYLPHENOL (O-CRESOL)	NCA	1800	180	ND	ND	ND	ND	ND	ND	ND
2-NITROANILINE	NCA NCA	370 NCA	0.Z	ND.	ND ND	ND ND	ND ND	ND NO	ND NO	ND ND
2-NITROPHENOL 3-3'-DICHLOROBENZIDINE	NCA NCA	0.15	0.2	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
3-NITROANILINE	NCA	NCA	NCA	ND	ND	ND	ND	ND	ND	ND
4.6-DINITRO-2-METHYLPHENOL	NCA	2.9	0.4	ND	ND	NO	МD	ND	ND	ND
84-BROMOPHENYL PHENYL ETHER	NCA	NCA 2200	NCA NCA	ND	ND	ND ND	ND	ND	NO I	ND ND
4-CHLORO-3-METHYLPHENOL 4-CHLOROANILINE	NCA NCA	3700 0.34	NCA 15	ND ND	ND ND	ND ND	ND ND	DM	ND ND	ND ND
4-CHLOROPHENYL PHENYL ETHER	NCA	NCA	NCA	ND	ND	ND	NO	. GN	ND	ND
4-METHYLPHENOL (P-CRESOL)	NCA	180	18	ND	ND	ND	ND	CM	ND	ND
4-NITROANILINE	NCA	3,4	NCA CO	ND	ND ND	ND	ND	ND NO	ND ND	ND ND
4-NITROPHENOL ACENAPHTHENE	NCA NCA	NCA 2200	60 37	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
ACENAPHTHYLENE	NCA	NCA	NCA	ND	ND ND	ND	ND	ND	ND	ND
ACETOPHENONE	NCA	3700	0.004	ND	ND	. ND	ND	ND	ND	ND
ANTHRACENE	NCA	11000	180	ND.	ND ND	ND ND	ND NO	ND I	ND ND	ND ND
ATRAZINE BENZAL DEHYDE	3 NCA	0.29 3700	0.3 370	ND ND	ND ND	ND ND	ND ND	ND I	ND ND	ND ND
BENZO(A)ANTHRACENE	NCA	0.029	0.09	ND	ND	ND	ND	ND	ND	ND
BENZO(A)PYRENE	0.2	0.0029	0.01	ND	ND	ND	ND	ND	ND	ND
BENZO(B)FLUORANTHENE	NCA	0.029	0.09	ND	ND	ND	ND	ND ND	. ND	ND NO
BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE	NCA NCA	NCA 0.29	NCA 0.9	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
BIS(2-CHLOROETHOXY) METHANE	NCA	110	NCA	ND	ND	ND.	ND	ND	ND	ND
BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	NCA	0.012	0.01	ND	ND	ND	ND	ND	CN	ND
BIS(2-CHLOROISOPROPYL) ETHER	NCA	0.32	0.3	ND	ND	ND NO	ND	NO I	ND ND	ND ND
BIS(Z-ETHYLHEXYL) PHTHALATE BUTYL BENZYL PHTHALATE	6 NCA	4.8 35	730	ND ND	ND ND	ND ND	ND ND	QN	1.) ND	ND ND
CAPROLACTAM	NCA	18000	1800	ND	ND ND	ND	ND	ND	ND	ND
CARBAZOLE	NCA	NCA	3	ND	ND	ND	ND	ND	ND	ND
CHRYSENE DIBENIZA HIANTHRACENE	NCA NCA	2.9 0.0029	0.01	ND NO	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
DIBENZ(A,H)ANTHRACENE DIBENZOFURAN	NCA NCA	37	2	ND ND	ND ND	ND	ND ND	ND	ND	ND
DIETHYL PHTHALATE	NCA	29000	5000	ND	ND	ND	ND	ND	ND	ND
DIMETHYL PHTHALATE	NCA	NCA	NCA	ND	ND NO	ND	ND	ND	ND	ND
DI-N-BUTYL PHTHALATE	NCA NCA	3700 NCA	NCA 73	ND ND	ND ND	ND ND	ND ND	DM DM	ND ND	ND ND
PLUORANTHENE	NCA NCA	NCA 1500	150	ND ND	ND ND	ND	ND ND	ND	ND ND	ND
FLUORENE	NCA	1500	24	ND	ND	ND	ND	ND	ND	ND
HEXACHLOROBENZENE	1	0.042	0.04	ND	ND	ND	ND	ND	ND	ND
HEXACHLOROBUTADIENE	NCA 50	0.86 220	0.9	ND ND	ND NO	ND ND	ON ON	ND ND	ND ND	ND ND
HEXACHLOROCYCLOPENTADIENE HEXACHLOROETHANE	50 NCA	4.8	26 1	ND ND	ND ND	ND ND	ND I	ND ND	ND	ND ND
INDENO(1,2,3-C,D)PYRENE	NCA	0.029	0.09	ND	ND	ND	ND	ND	ND	ND
ISOPHORONE	NCA	71	71	ND	ND	ND	ND	ND	DM	ND
NAPHTHALENE NITROBENZENE	NCA	0.14	0.7	ND ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND
N-NITROSODI-N-PROPYLAMINE	NCA NCA	0.12 0.0096	0.4	ND ND	ND ND	ND ND	ND I	ND ND	ND I	ND ND
N-NITROSODI-N-PROPILA-INE	NCA	14	14	ND	ND	ND	ND	ND	NO	ND
PENTACHLOROPHENOL	1	0.17	0.6	ND	ND	ND	ND	ND	ND	ND
PHENANTHRENE	NCA	NCA 11000	120	ND.	ND	ND NO	ND ND	ND ND	ND NO	ND ND
PHENOL PYRENE	NCA NCA	11000 1100	4000 18	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
1 - 115-) - 15-									•••••	ominimum d

PYRENE
Notes:
Notes:
Notes:
Notes:
Note - No Criteria Available
NCA - No Criteria Available
ND - Not Detected
J - Estimated Concentration
DNREC URS Groundwater - DNREC Uniform Risk Based Remediation Standard for Protection of Human Health

Table 8
Summary of Groundwater Analytical Results - Pesticides and PCBs
Procino Plating (DE-0344)
Blades, Delaware

Location	~	***************************************		PPM	W-01	PPMW-02	PPMW-03	PPMW-04	PPMW-05	PPMW-06
Sample				DUP1	PPMW01	PPMW02	PPMW03	PPMW04	PPMW05	PPMW06
Sample Date				6/16/2011	6/16/2011	6/16/2011	6/16/2011	6/16/2011	6/17/2011	6/17/2011
Unit				ug/l	ug/l	ug/l	ug/I	ug/i	ug/I	ug/I
	(PA 1971) (1997)	EPA (C). To see a Cost	DIRECTION CONTRACTOR (CO.)							
		Pesti	cides by Methos	SW8081						
ALDRIN	NCA	0.004	0.004	ND						
ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	NCA	0.011	0.01	ND						
ALPHA ENDOSULFAN	NCA	NCA	NCA	ND						
ALPHA-CHLORDANE	NCA	NCA	NCA	ND	ND	ND	0.11 P	ND	ND	ND
BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	NCA	0.037	0.04	ND	ND	ND	ND	ND	ND .	ND.
BETA ENDOSULFAN	NCA	NCA	NCA	ND						
DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	NCA	NCA	0.04	ND						
DIELDRIN	NCA	0.0042	0.004	0.14	ND	ND	1.2	ND	0.62	ND
ENDOSULFAN SULFATE	NCA	NCA	NCA	ND						
ENDRIN	2	11	2	ND						
ENDRIN ALDEHYDE	NCA	NCA	NCA	ND						
ENDRIN KETONE	NCA	NCA	NCA	ND	ND	ND	0.047 J	ND	0.058	ND
GAMMA BHC (LINDANE)	0.2	0.061	0.05	ND						
GAMMA-CHLORDANE	2	0.19	0.2	ND	ND	ND	0.034 Jp	ND	ND	ND
HEPTACHLOR	0.4	0.015	0.01	ND						
HEPTACHLOR EPOXIDE	0.2	0.0074	0.007	ND	ND	ND	0.055 P	ND	ND	ND
METHOXYCHLOR	40	180	40	ND						
P,P'-DDD	NCA	0.28	0.3	ND						
P.P'-DDE	NCA .	0.2	0.2	ND						
P,P'-DDT	NCA	0.2	0.2	ND						
TOXAPHENE	3	0.061	0.06	ND						
		Polychlorinal	ed Biphenyls by	Method SV	V8082			•		
AROCLOR 1016	NCA	0.96	0.10	ND						
AROCLOR 1221	NCA	0.0068	0.03	ND						
AROCLOR 1232	NCA	0.0068	0.03	ND						
AROCLOR 1242	NCA	0.034	0.03	ND	ND	ND	ND	ND	ND	. ND
AROCLOR 1248	NCA	0.034	0.03	ND						
AROCLOR 1254	NCA	0.034	0.03	ND						
AROCLOR 1260	NCA	0.034	0.03	ND						

Notes:

ug/l - micrograms per liter

NCA - No Criteria Available

ND - Not Detected

J - Estimated Concentration

P - the %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported by the laboratory.

DNREC URS Groundwater - DNREC Uniform Risk Based Remediation Standard for Protection of Human Health

Shaded - Concentration exceeds DNREC Groundwater URS

<u>Underline</u> - Concentrations exceeds EPA Regional Screening Level for Tapwater

Table 9 Summary of Groundwater Analytical Results - Metals Procino Plating (DE-0344) Blades, Delaware

Location			· · · · · · · · · · · · · · · · · · ·		PPM'	W-01		PPM	N-02	PPM	W-03	PPM	N-04	PPM	W-05	PPM1	W-06
Sample				DUP1	DUP1	PPMW01	PPMW01	PPMW02	PPMW02	PPMW03	PPMW03	PPMW04	PPMW04	PPMW05	PPMW05	PPMW06	PPMW06
Total (T) or Dissolved ((D)			D	T	D	Т	D	Т	D	Т	D	Т	D	T	D	Т
Sample Date				6/16/2011	6/16/2011	6/16/2011	6/16/2011	6/16/2011	6/16/2011	6/16/2011	6/16/2011	6/16/2011	6/16/2011	6/17/2011	6/17/2011	6/17/2011	6/17/2011
Unit				uaA	ua/l	uo/l	ua/i	ua/l	ua/l	ua/l	ud/l	ua/I	ud/I	ua/I	ug/l	ug/l	uq/I
Clar Car	GA M.S.	e de la companya de l	DNICE URS					,						,			
	1000	(ugu)	0.679														
	-						Metals by	Method C20	0.7								
ALUMINUM	NCA	37000	200	ND	841	ND	722	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ANTIMONY	6	15	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ARSENIC	10	0.045	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND .	ND	ND	ND	ND
BARIUM	2000	7300	260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	: ND	ND	ND
BERYLLIUM	4	73	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CADMIUM	5	18	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND.	ND	ND
CALCIUM	NCA	NCA	NCA	10100	10800	10200 EW	9760 EW	21600 EW	21100 EW	12800	13100	23800 EW	23500 EW	20500	22000	12500	13300
CHROMIUM, TOTAL	100	NCA	100	ND	ND	ND.	ND	ND	ND	ND	ND	ND	ND	ND	ND	959	1030
COBALT	NCA	11	220	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COPPER	1300	1500	1300	ND	ND	. ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IRON	NCA	26000	300	ND	455	- ND	337	ND	ND	ND	ND	ND	ND	745	892	167	217
LEAD	15	NCA	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND.
MAGNESIUM	NCA	NCA	NCA	1810	1960	1820 EW	1790 EW	3770 EW	3670 EW	2420	2500	5240 EW	5160 EW	1910	2040	1560	1650
MANGANESE	NCA	880	50	ND	ND	ND	ND	ND	ND	49.3	50.8	ND	ND	53.0	56.8	58.8	62.6
NICKEL	NCA	730	100	47.5	48.3	47.3 EW	43.5 EW	ND	ND	ND	ND	ND	ND	OIN	ND	377	399
POTASSIUM	NCA	NCA	NCA	1660	1760	1660 EW	1610 EW	2700 EW	2650 EW	3600	3610	4420 EW	4170 EW	3360	3480	19100	20200
SELENIUM	50	180	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SILVER	NCA	180	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SODIUM	NCA	NCA	NCA	4420	4490	4260	4260	6240	6240	8020	8410	13600 EW	13200 EW	16900	17900	7780	8310
THALLIUM	2	0.37	2	ND	ND .	ND	ND.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND.
VANADIUM	NCA	NCA	26	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ZINC	NCA	11000	2000	ND	ND	ND	ND	ND	ND	29.7	30.5	ND	ND	ND	ND	304	321
							Hercury by	Method Ca	45.1								
MERCURY	2	0.63	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
							Cyanide bi	Method E3	35.4								
CYANIDE	200	730	200	NA NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND

Notes:

ug/l - micrograms per liter

NCA - No Criteria Available

NA - Not Analyzed

ND - Not Detected

EW - Value exceeds a theoretically equal or greater value (e.g., dissolved > total), however, the difference is within the expected precision of the analytical techniques and is not statistically significant.

DNREC URS Groundwater - DNREC Uniform Risk Based Remediation Standard for Protection of Human Health

Shaded - Concentration exceeds DNREC Groundwater URS

Bold - Concentration exceeds EPA Maximum Contaminant Level for drinking water



Table 10 Summary of Private Well Analytical Results Procino Plating (DE-0344) Blades, Delaware

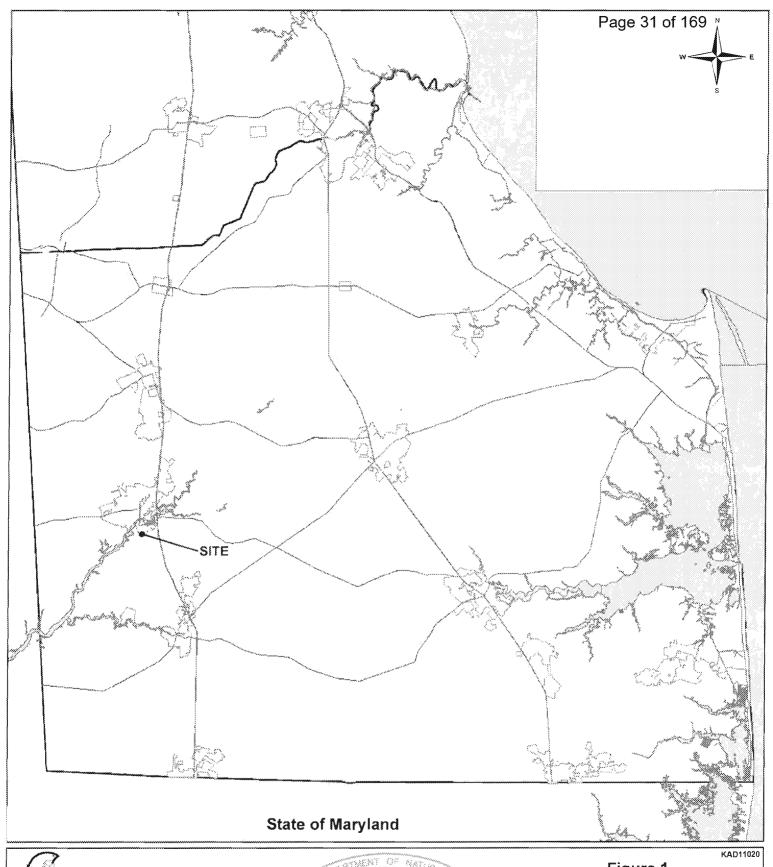
Location - Numbers (Conecons	to Figure 1	·	·		************	p 0000000000000000	particular	-	pid commoditions	ga teer, common de le common d	-	900 0000000000000000000000		10	 				14	15	15	~~~~~~	15	19	20
	CONTRACTOR OF	IN LIGHTE T	-			Shares	26031	26039	3		?	2161 Fire?	8140 First	Vacant		<u> </u>	13	No:	13 26055	26100	Nat	Vacant	8081	8093	8103	26107
Address				26017	River Rd.	well with	River Rd.	River Rd.	Vacant	8123 6	first St.	St.	St.	Property	Empty Lot	26101 13	kuncan Ave.	Sampled	River Rd.	Duncan Ave	Sampled	Property			Second St.	River Rd.
Sample Date				5/19/201)	252225	######	4/28/2011	4/28/2011	5/19/2010	4/28/2011	4/28/2011	4/28/2011	4/28/2011	4/28/2011	22222	* ****	4/28/2011	4/28/2011	4/28/2011	4/28/2011	4/28/2011	4/28/2011	4/28/2011	4/28/2011	5/19/2010
SJnit		***************************************	***************************************	ug/l	<u>ug/1</u>	ug/l	ug/l	ugri	мал	ug/l	1\pu	ugg	Ug/1	uq/I	Uq/1	right	ug/I	ugi	1/02/1	<u>uq/I</u>	<u>ug/I</u>	ug/l	ug/I	ug/I	ug/1	1 183/1
											•	race Metals		bu.a											-	
ANTIMONY	6	15	6	NO.	ND	NS	ND	ND	NS	ND	NO	ND	ND	NS	NS	ND	(369 E	NS	ND	ND	NS	NS	ND	ND.	ND	ND .
ARSENIC	10	0.045	0.50	I ND	ND	NS	ND	ND	NS	ND	NO.	CM .	1 ND	NS	NS	ND	∦ ND	NS	ND	ND	NS	NS	ND.	ND	ND	NO \$
BARIUM	2000	7300	260	241.7	274.5	NS.	525	64.2	NS	769.2	847.8	422.1	76.7	NS.	NS	131.6	1.36.1	NS.	83.2	228.9	NS	NS.	231.4	ND.	29.8	401.5
BERYLLIUM	1 4	73	4	0.7	1.7	NS NS	0.5	ND	NS	4.0	3.8	1 08	0.7	NS	NS.	ND	I ND	NS.	NO	ND	NS	NS	0.5	NO.	ND	9.0
CADMIUM	5	18	<u>į 5</u>	1.6	ND.	NS.	80	ND.	NS	0.5	0.5] ND	ND	NS.	l NS	ND	j ND	NS NS	ND	ND	NS	NS	ND	NO	ND	ND 1
CHROMIUM	100	NCA	150	3.1	2.3	NS	1.3	3.1	NS	2.3	1.6	1.4	24.2	NS	i ns	3.8	3 2.9	NS	4.0	1.2	NS	NS	3.5	3.3	3.1	2.8
LEAD	15	I NCA	15	3.2	1.8	NS NS	0.6	3.8	NS.	0.9	1.0	0.6	1.9	<u>NS</u>	l NS	<u>I ND</u>	ND.	NS	ND	2.9	MS	NS	2.1	ND ND	ND	2.7
MANGANESE	50*	580	50	146.9	82.3	NS	97.7	5.7	NS NS	169.9	190,6	202.3	93.0	NS	NS NS	172.3	217.9	NS.	37.6	40.8	NS	NS	165.3	1.1	13.6	237.6
NICKEL	NCA .	730	100	<u>} 5.9 .</u>		L NS	4.5	0.5	NS	10.9	11.2	6.1	76.5	NS	NS.	2.0	2.0	NS.	1.7	2.5	NS	NS	5.1	ND	1.7	13.4
MERCURY	4	<u> </u>		ND.	ND.	<u>NS</u>	ND.	ND ND	NS.	ND.	ND	ND	11.0	NS	NS	NO.	NO	NS.	ND	ND	NS	NS	ND	ND	ND	NO.
SELENIUM	50	180	1 30	ND.	ND ND	NS NS	ND.	ND	NS NS	ND	ND	ND	ND	NS	NS	ND.	I NO	N5	ND	NO	NS	NS	ND.	ND	I ND	1 ND
MALLIUM	<u> </u>	0.37	<u></u>	ND ND	ND ND	NS	ND ND	, ND	i NS	ND	ND	ND	ND ND	NS	NS	ND.	NO	NS	ND	ND	NS	NS	ND	ND ND	ND	ND I
URANIUM EZINC	5000°	110	2000	ND 6950		NS	MD	ND	NS	<u>NQ</u>	NΩ	MD	ND	<u> </u>	NS	4NP	ND 74.9	NS	NO	ND 30.3	NS	NS	ĻŅD	MD	ND	MD.
£13V	3, 3000	11500	4030	1 0337	364.6	<u>I NS</u>	ì94.4	<u> </u>	·	1360	1426,5	23.3	17.2 Method E33	NS S	i <u>ns</u>	1		NS.	l NO		NS		46.4) ND	ND ND	35.7
CYANIDE	T 200	730	200	ND ND) ND	NS	ND	NO.	1 6C	NO.	MD.	30000000000000000000000000000000000000	70	NS NS	T NC	N.D.	ND.	T NC	l wr	NO.	NS.	NS	ND.	l NO	l ND	NO I
P					·	·····			<u> </u>			₩₩₩	tanii a	eaxe(\$34.2				·····		·····				·········	······	
VOCs	7	***************************************	·	ND	. NA	T NS	NA.	NA.	NS	ND	NA NA	NA NA	NA	NS	NS	I ND	NA.	i NS	NA NA	NA.	NS	NS	NA.	NA.	NA NA	T ND 1

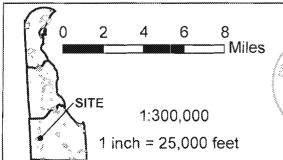
NOTES:

Souts:
O()1 - microorams per liter
NCA - No Criteria Available
NA - Not Analyzed
NA - Not Category
NA - Not Detected
NA

FIGURES

Procino Plating DE-0344



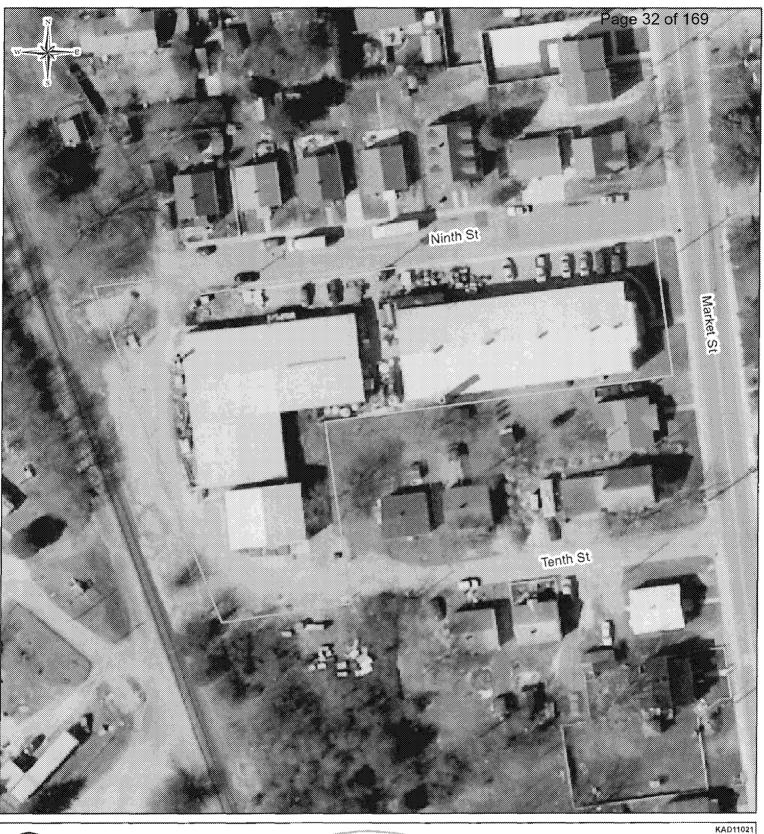


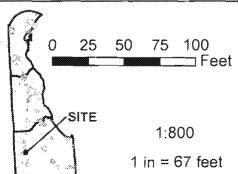
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302.395.2600

Figure 1 Location of Procino Plating (DE-0344) in Sussex County, Delaware

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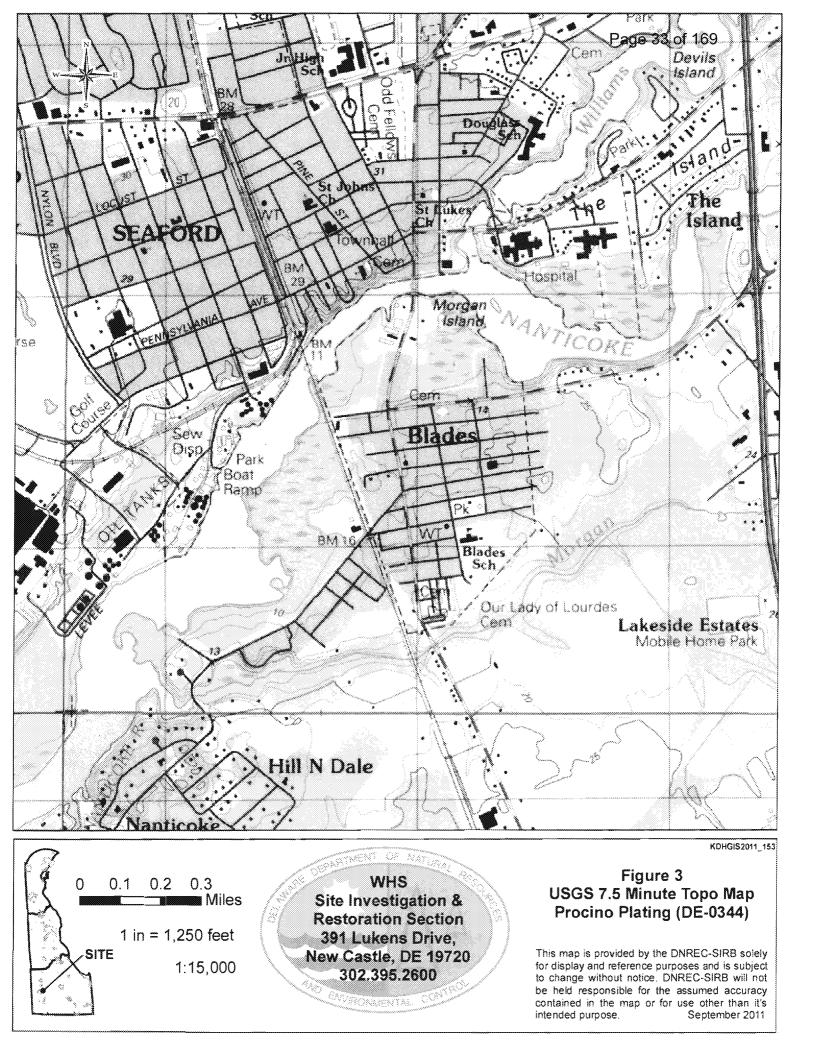
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SAV PLONAVENTAL

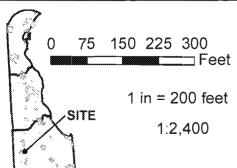
Figure 2 Site Features Map Procino Plating (DE-0344) Blades, Delaware

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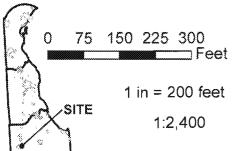
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Figure 4 1937 Aerial Photograph Procino Plating (DE-0344)

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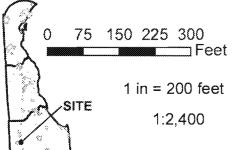
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Figure 5 1954 Aerial Photograph Procino Plating (DE-0344)

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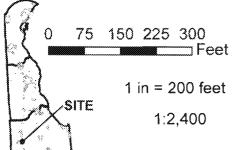
NATURE

Figure 6 1961 Aerial Photograph Procino Plating (DE-0344)

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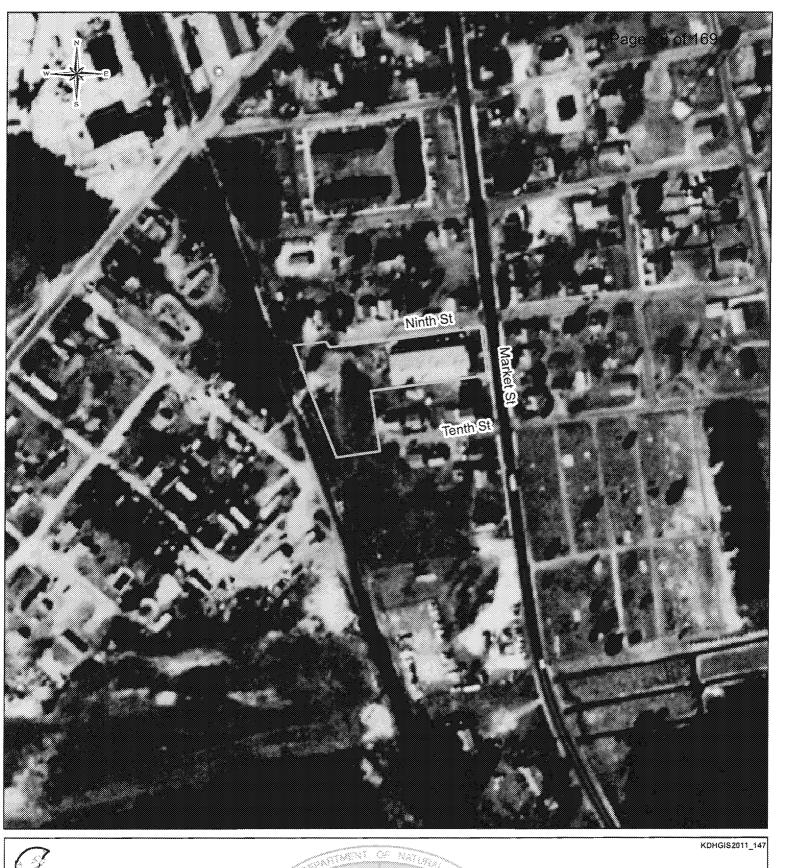
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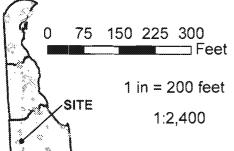




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Figure 7 1968 Aerial Photograph Procino Plating (DE-0344)

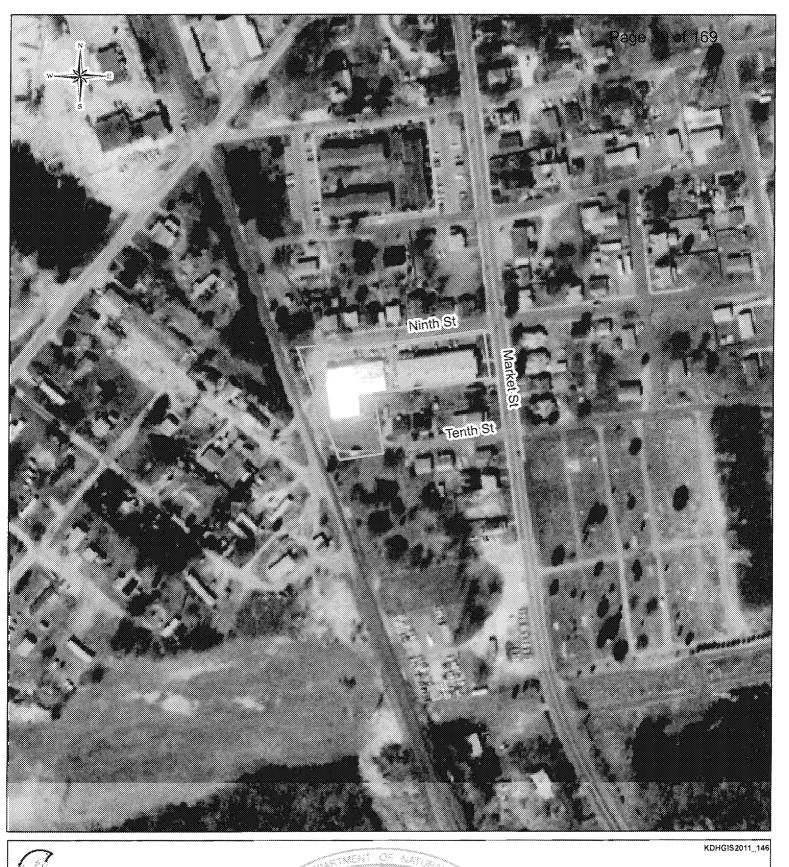




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Figure 8 1992 Aerial Photograph Procino Plating (DE-0344)

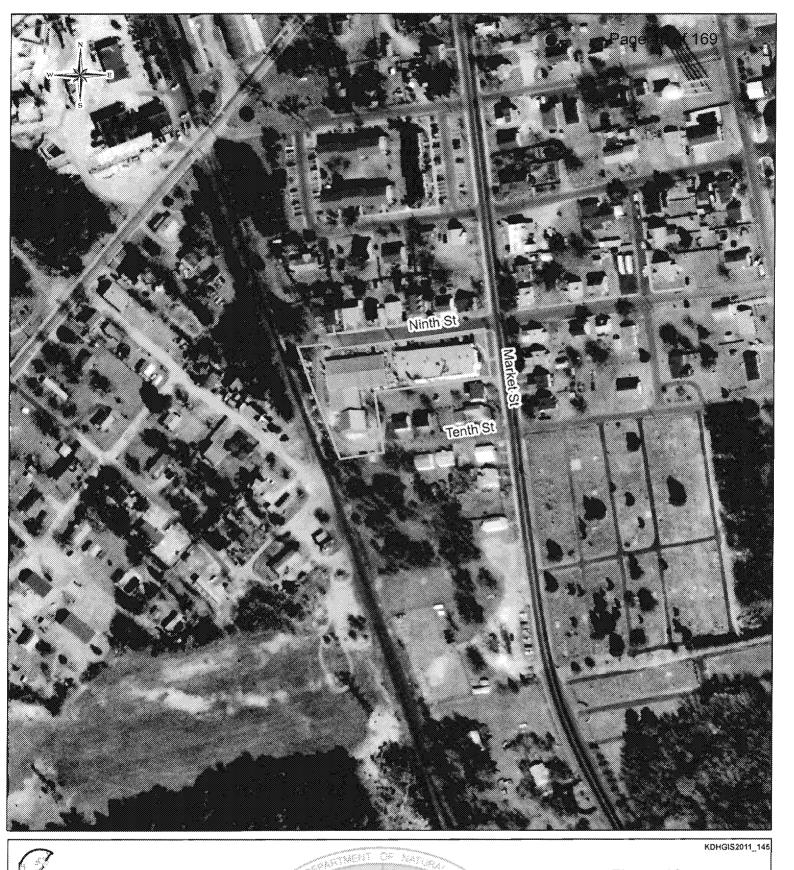


0 75 150 225 300 Feet 1 in = 200 feet SITE 1:2,400

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Figure 9 1997 Aerial Photograph Procino Plating (DE-0344)



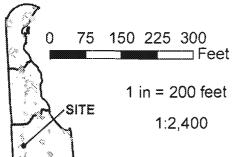
0 75 150 225 300 Feet 1 in = 200 feet 1:2,400

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Figure 10 2002 Aerial Photograph Procino Plating (DE-0344)

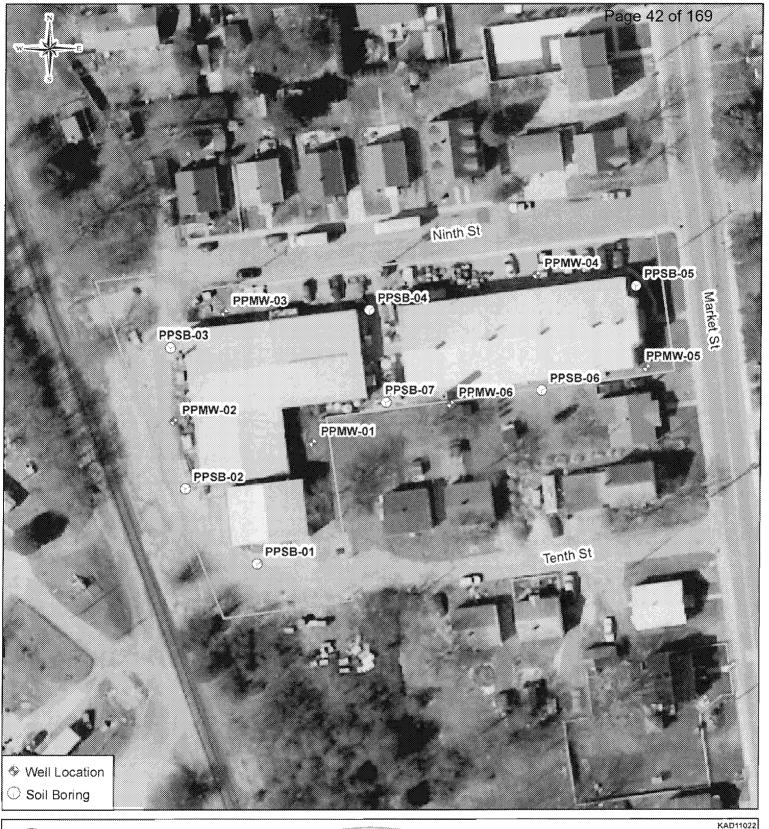


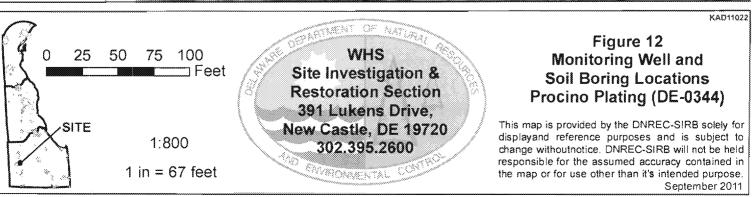


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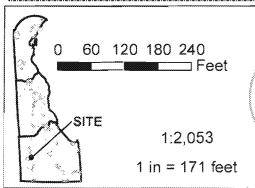
Syroanenta.

Figure 11 2007 Aerial Photograph Procino Plating (DE-0344)





Ex. 9 Wells & Ex. 6 Personal Privacy



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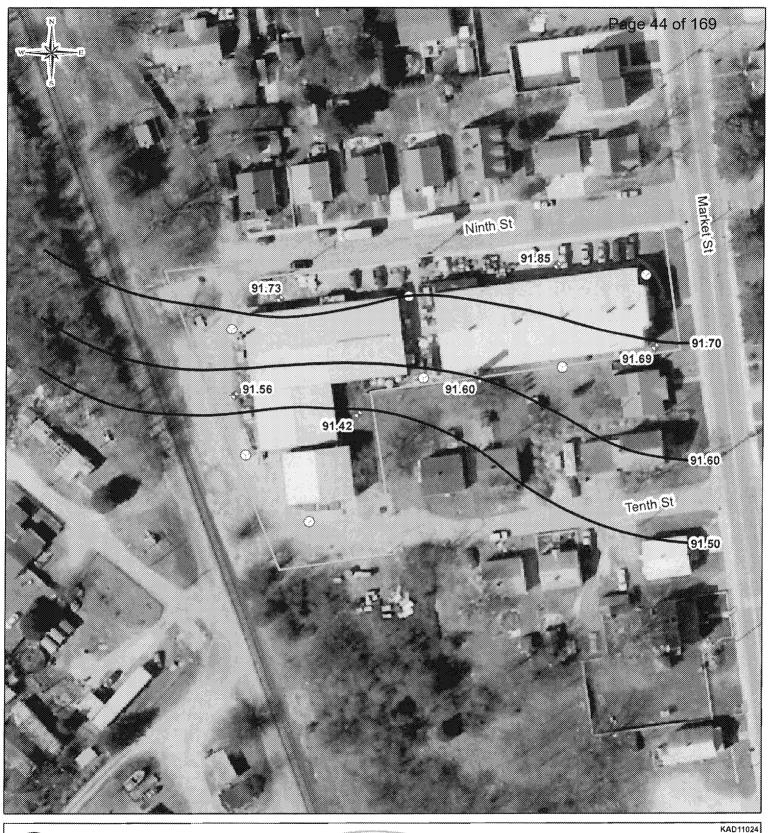
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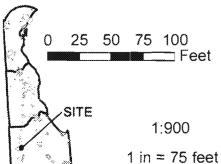
Figure 13 Private Well Sampling Locations Procino Plating (DE-0344)

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Figure 14 Groundwater Elevation Contour Map - 5/24/11 Procino Plating (DE-0344)

APPENDICES

Procino Plating DE-0344

APPENDIX A PARCEL TITLE SEARCH

Procino Plating DE-0344

Tax Parcel Numbers:

132-1.15-187.00 and 132-1.15-188.00

Purchase Date	Sale Date	Owners
	Parcel 132-1.15	5-187.00
4/11/2011	~	Four Pros Properties, LLC
5/3/1996	4/11/2011	Patrick and Rita Procino
6/23/1988	5/3/1996	HMS Blades, Limited
-	6/23/1988	Ex. 6 Personal Privacy (PP)
	Parcel 132-1.15	5-188.00
4/11/2011	~	Four Pros Properties, LLC
7/16/1996	4/11/2011	Patrick and Rita Procino
. Mar	7/16/1996	Ex. 6 Personal Privacy (PP)

APPENDIX B SOIL BORING LOGS

Procino Plating DE-0344

Boring I	D: PPS	SB-01	Logger: KAD Geologist: JGC Date: 0)5/24/11 Page	of
Site Nar	ne: Pro	cino Pla	ing Weather: Sunny, breeze, v	varm, humid	
DNREC	ID: DE	E-0344	Driller: Vironex		
Shallow Sample:	*****************************	ļ	ample Deep PP-SB-01D nterval 1.2-3.2 Time: 12:50 Sample:	Sample 8.35- Interval 9.25 Time:	12:55
Core# PID	Start Depth	End Depth	Description		Moisture/ H ₂ O
1	0	0.8	No Recovery		
PID=0	0.8	1.2	Asphalt crumbles and gravel		Dry
mnnoooo · · · Ma mmnnnoooooo	1.2	1.85	Brown MG Sand		Dry
	1.85	2.35	Dark. Brown to Black FG to MG Sand		Dry
	2.35	5.0	Γan and Light Brown FG to MG Sand, Trace Silt and Tr	race Organic	Dry
2	5.0	7.3	No Recovery		
PID=0	7.3	8.35	Fallback		Dry
	8.35	9.25	Fan and Brown Mottled FG to MG Sand		Dry
	9.25	10.0	aminated Tan and Brown FG to MG Sand		Wet
	ĺ				
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		***************************************	Logger:			***************************************			***************************************
Boring 1	D: PPS	B-02	JGC/KAD	Geolog	gist: JGC	Date:	05/24/11	Page	of
Site Nar	ne: Pro	cino Pla	ating	We	ather: Sunny,	light bre	eze, warm, hum	id	
DNREC	CID: De	E-0344	Driller: Virone	ζ					
Shallow Sample			Sample Interval 1.15-3.15	Time: 12:15	Deep PPS Sample:	B-02D	Sample 7.6- Interval 9.1	Time:	12:20
Core# PID	Start Depth	End Depth		######################################	Description	3344666			Moisture/ H ₂ O
1	0	0.7	No Recovery						
PID=0	0.7	1	Asphalt crumbles ar	nd gravel					Dry
	l	1.9	Orange and Light B	rown Fine Me	edium Sand –	Trace Si	ilt		Dry
	1.9	2.7	Dark Brown and Bla	ack FG to MG	Sand				Dry
	2.7	5.0	Tan, Light Brown F	G to MG San	d, TR. Organio	c (3.6 -3	.9)		Dry
2	5.0	7.2	No Recovery						
PID=0	7.2	7.6	Fallback					~~~~	Dry
	7.6	9.1	Tan, Light Brown Fe	G to MG San	l, TR. Organio	: (3.6 -3	.9)		Dry
	9.1	10.0	FG Tan and Light B	rown Sand					Wet

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	******************************	······································		***************************************	·····	***************************************	•••••	•••••••••••	l

ID: PPS	B-03	Logger: KAD/JGC Geologist: JGC Date: 05/24	1/11 Page	of
me: Pro	cino Pla	ting Weather: Sunny, light breeze,	warm, humid	
C ID: De	C-0344	Driller: Vironex		
		^ { \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		10:45
Start	End	Description		Moisture/ H ₂ O
0	0.9	No Recovery		
0.9	1.25	Gravel and Gray Asphalt		Dry
1.25	1.6	Tan/Orange Medium Sand with Trace Silt		Dry
1.6	1.9	Dark Brown to Black Fine to Medium Sand		Dry
1.9	2.1	Light Brown Fine to Medium Sand with Gravel		Dry
2.1	2.45	Tan Fine to Medium Sand		Dry
2.45	2.95	Dark Brown to Black FG to MG Sand		Dry
2.95	5.0	Light Brown FG to MG Sand, Trace Gravel		Dry
5.0	6.1	No Recovery		
6.1	6.7	Light Brown FG to MG Sand, Trace Gravel		Dry
6.7	6.95	Black and Tan MG to CG Sand, Trace Gravel		Dry
6.95	8.9	Mottled Tan and Light Brown FG to MG Sand		Dry
8.9	10.0	Mottled Tan and Light Brown FG to MG Sand, Trace Grave	<u> </u>	Wet
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	me: Pro C ID: DE Start Depth 0 0.9 1.25 1.6 1.9 2.1 2.45 2.95 5.0 6.1 6.7 6.95	PPSB-03S Start End Depth Depth Depth 0 0.9 0.9 1.25 1.6 1.6 1.6 1.9 1.9 2.1 2.1 2.45 2.45 2.45 2.95 5.0 5.0 6.1 6.1 6.7 6.95 8.9	ID: PPSB-03 KAD/JGC Geologist: JGC Date: 05/24 me: Procino Plating Weather: Sunny, light breeze, CID: DE-0344 Driller: Vironex Sample 1.15 - Deep PPSB-03D San PPSB-03S Interval 3.15 Time: 10:40 Sample: Inte Start End Depth Description 0 0.9 No Recovery 0.9 1.25 Gravel and Gray Asphalt 1.25 1.6 Tan/Orange Medium Sand with Trace Silt 1.6 1.9 Dark Brown to Black Fine to Medium Sand 1.9 2.1 Light Brown Fine to Medium Sand with Gravel 2.1 2.45 Tan Fine to Medium Sand 2.45 2.95 Dark Brown to Black FG to MG Sand 2.95 5.0 Light Brown FG to MG Sand, Trace Gravel 5.0 6.1 No Recovery 6.1 6.7 Light Brown FG to MG Sand, Trace Gravel 6.95 8.9 Mottled Tan and Light Brown FG to MG Sand	ID: PPSB-03 KAD/JGC Geologist: JGC Date: 05/24/11 Page Weather: Sunny, light breeze, warm, humid ID: DE-0344 Driller: Vironex Sample 1.15 - PPSB-038 Interval 3.15 Time: 10:40 Sample: Interval 8.9 Time: Start End Depth Depth Depth 0 0.9 No Recovery 0.9 1.25 Gravel and Gray Asphalt 1.25 1.6 Tan/Orange Medium Sand with Trace Silt 1.6 1.9 Dark Brown to Black Fine to Medium Sand 1.9 2.1 Light Brown Fine to Medium Sand 2.45 2.95 Dark Brown to Black FG to MG Sand 2.95 5.0 Light Brown FG to MG Sand, Trace Gravel 5.0 6.1 No Recovery 6.1 6.7 Light Brown FG to MG Sand, Trace Gravel 6.7 6.95 Black and Tan MG to CG Sand, Trace Gravel 6.95 8.9 Mottled Tan and Light Brown FG to MG Sand

Boring II	D: PPSI	B-04	Logger: KAD Geologist: JGC Date: 05/26/11 Page	of
Site Nam	e: Proc	ino Pla	weather: Sunny, breeze, warm, humid	
DNREC	ID: DE	-0344	Driller: Vironex	
Shallow Sample:	PPSB-		Sample Deep PPSB-04D Sample 8.0- Interval 1.6-3.6 Time: 09:42 Sample: Interval 10.0 Fime: 0	9:46
Core# PID	Start Depth	End Depth	Llecorintion	Moisture/ H ₂ O
1	0	1.1	No Recovery	
PID=0.3@ 1.65' 3.6-hi otherwise PID=0	1.1	1.6	Light and Dark Brown Silty Sand and Gravel	Dry
	1.6	2.5	Mottled Light and Dark Brown Silty FG/MG Sand, Trace Gravel	Dry
	2.5	2.95	Brown Silty FG/MG Sand, Trace Clay	Dry
	2.95	4.0	Mottled Light and Dark Brown FG/MG Sand, Gravel @3.55'	Dry
	4.0	4.15	Orange and Brown FG/MG Sand	Dry
	4.15	4.45	Dark Brown FG/MG Sand	Dry
	4.45	5.0	Mottled Tan and Brown FG/MG Sand	Dry
2	5.0	7.0	No Recovery	
PID=0	7.0	7.3	Fall Back (PID HIT = 0.8)	Dry
	7.3	8.15	Mottled Tan and Brown FG/MG sand	Dry
	8.15	10.0	Laminated Tan and Brown FG/MG Sand (Moist @10')	Dry
3	10.0	11.7	No Recovery	
PID=0	11.7		Fall Back	
	12.2	1 1 7 11	Tan FG/MG sand, TR. Heavy Mineral, Concentration of heavy minerals @ 13.15 – 13.3'	Wet

Boring :	ID: PPS	SB-05	Logger: KAD Geologist: JGC Date: 05/25/11 Page	of
Site Nar	ne: Pro	cino Pla	ting Weather: Sunny, lt. breeze, warm, humid	
DNREC	CID: De	C-0344	Driller: Vironex	
Shallow Sample			Sample Deep PPSB-05D Sample 9-10 & Sample 2.2-4.2 Time: 10:29 Sample: Interval 11.3-12.3 Tim	e: 10:42
Core# PID	Start Depth	End Depth	Description	Moisture/ H ₂ O
1	0	0.8	No Recovery	
PID=0	2.05	2.2	Grass and Topsoil	Dry
	2.2	2.7	Dark Brown Silty FG/MG Sand	Dry
	2.7	3.15	Light Brown FG/MG Sand	Dry
	3.15	3.4	Light Brown FG/MG Sand with Gravel and Pebbles	Dry
	3.4	3.55	Light Brown FG/MG Sand with Gravel and Pebbles 2.7 – 3.15	Dry
	3.55	3.7	Light to Dark Brown MG/CG Sand and Gravel	Dry
	3.7	4.2	Dark Brown FG/MG Sand	Dry
	4.2	5.0	Light Brown FG/MG Sand	Dry
2	5.0	6.75	No Recovery	,
PID=0	6.75	7.15	Fall Back	Dry
	7.15		Light Brown to Orange FG/MG Sand, Trace Silt Laminated Tan and Orange FG/MG Sand with a few heavy mineral	Dry
	8.1	10.0	laminations	Dry
3	10.0		No Recovery	
PID=0	10.5		Fallback (water @11-11.5)	
	11.3		Laminated Tan and Orange FG/MG Sand	Dry
	12.1		Light Brown Silty FG/MG Sand	Moist
	12.65	·····	Tan FG/MG Sand, Silty Sand Lens (12.85-13.0)	Wet
	13.7		Tan MG/CG Sand	Wet
	13.9	15.0	Tan FG/MG Sand	Wet

Boring I	D: PPS	B-06	Logger: KAD Geologist: JGC Date: 05/25/11 Page	of
Site Nan	ne: Pro	cino Pla	Weather: Sunny, It. breeze, hot, humid	
DNREC	ID: DE	C-0344	Driller: Vironex	
Shallow Sample:		-06S	Sample Deep PPSB-06D Sample 8.0- Interval 3.0-5.0 Time: 13:30 Sample: Interval 10.0 Time:	13:36
Core# PID	Start Depth	End Depth	Description	Moisture/ H ₂ O
1	0	2.7	No Recovery	
PID=0	2.7	2,95	Grass and Topsoil	Dry
	2.95	4.5	Light and Dark Brown Silty FG/MG Sand, Roots	Dry
	4.5	5.0	Light Brown FG/MG Sand	Dry
2	5.0	6.9	No Recovery	
PID=0	6.9	7.15	Fallback	
	7.15	7.9	Orangish brown FG/MG Sand	Dry
	7.9	10.0	Laminated Tan and Brown FG/MG Sand, Trace Heavy Minerals	Dry
			Wet at 10'	
		,		

Boring I	D: PPS	SB-07	Logger: KAD Geologist: JGC Date: 05/26/11 Page	of
Site Nai	ne: Pro	cino Pla	ting Weather: Sunny, breeze, warm, humid	
DNREC	ID: DF	E-0344	Driller: Vironex	
Shallow Sample			Sample Deep PPSB-07D Sample 7.6- Interval 2.9-4.9 Γime: 09:12 Sample: Interval 9.6 Γime:	09:20
Core# PID	Start Depth	End Depth	Description	Moisture/ H ₂ O
1	0	2.55	No Recovery	
PID=0	2.55	2.9	Dark Brown Silty Sand and Gravel "topsoil"	Dry
	2.9	3.35	Light Brown and Tan Silty MG/CG Sand	Dry
	3.35	4.5	Mottled light and dark Brown FG/MG Sand, TR. Gravel	Dry
	4.5	5.0	Laminated light and dark Brown FG/MG Sand	Dry
2	5.0	6.8	No Recovery	
PID=0	6.8	7.25	Fall Back	Dry
	7.25	8.55	Mottled Light and Dark Brown FG/MG Sand	Dry
	8.55	10.0	Laminated Light and Dark Brown FG/MG Sand Moist @9.6'	Dry
3	10.0	11.1	No Recovery (Wet @ 10')	
PID=0	11.1	11.6	Fallback	
	11.6	14.5	Tan FG/MG Sand, Heavy Mineral Laminations	Wet
	14.5	14.8	Tan FG/CG Sand, Trace Gravel	Wet
	14.8	15.0	Tan FG/MG Sand	Wet
-				
			Duplicate of PPSB-07D is PPSB-40D	
······				

Boring :	ID: PPN	1W-01		Logger: K	۸D	Geolog	ist: JGC	Date: ()5/24/11	Page	of
Site Na	me: Pro c	cino Pla	ting			Wea	ther: Sunny	, breezy, v	warm, humid		
DNREC	DID: DE	C-0344	Dı	iller: Viro	nex						
Shallow Sample	· : PPMW		Sample Interval	1.3-3.3	Time:	13:10	Deep PPN Sample:	MW-01D	Sample 7.65 Interval 9.3	Time:	13:15
Core# PID	Start Depth	End Depth				1	Description				Moisture/ H ₂ O
1	0	1.2	No Rec	overy							
PID=0	1.2	1.3	Roots a	ınd Topsoi							Dry
	1.3	2.95	Dark B	rown and I	Black Si	lty FG to	MG Sand				Dry
	2.95	5.0	Mottled	d Tan and I	ight Br	own FG	to MG Sand	l, Trace O	rganics		Dry
2	5.0	7.3	No Rec	overy							
PID=0	7.3	7.65	Fallbac	k							Dry
	7.65	9.3	Mottled	I Tan and I	Brown F	G to MG	Sand, Trac	e Organic	:S	/	Dry
	9.3	10.0	Mostly	FG Sand, I	Mottled	Tan and	Brown				Wet
3	10.0	13.2	No Rec	overy			,,,,,,				
PID=0	13.2	15.0	Tan MO	G to CG Sa	nd						Wet
4	15.0	18.6	No Rec	overy							
PID=0	18.6	19.2	Tan and	l Light Bro	wn FG	to MG S	and			1.	Wet
	19.2	20.0	Tan MO	G to CG Sa	nd and (Quartz G	ravel				Wet
***************************************			Set Wel	1 @ 18'							
***************************************		-									
***************************************	***************************************			***************************************		***************************************	***************************************	***************************************	***************************************	***************************************	

Boring	ID: PPN	4W-02	Logger: JGC Geologist: JGC Date: 05/24/11 Page	of				
Site Nai	me: Pro	cino Pla	ting Weather: Sunny, breeze, warm, humid					
DNREC	C ID: DF	E-0344	Driller: Vironex					
Shallov Sample	v : PPMW		Sample Deep PPMW-02D Sample 7.2- Interval 1.3-3.3 Time: 11:00 Sample: Interval 9.2 Time:	11:05				
Core# PID	Start Depth	End Depth	Description	Moisture/ H ₂ O				
1	0	0.9	No Recovery					
PID=0	0.9	1.2	Asphalt crumbles and gravel	Dry				
·	1.2	1.7	Tan and Orange Silty Fine – Medium Sand	Dry				
·····	1.7	2.1	Dark Brown Silty Fine Sand	Dry				
•	2.1	2.65	Tan and Orange Silty Fine to Medium Sand	Dry				
	2.65	3.1	Dark Brown Silty Fine Sand	Dry				
	3.1	5.0	Light Brown to Tan Fine to Medium Sand	Dry				
2	5.0	6.8	No Recovery					
PID=0	6.8	7.0	ight Brown to Tan Fine to Medium Sand					
	7.0	7.15	Dark Brown to Balck Fine to Medium Sand and Trace Gravel	Dry				
	7.15	9.2	Mottled Tan and Brown Fine to Medium Sand	Dry				
	9.2	10	Tan Fine Sand	Wet				
3	10.0	10.2	No Recovery					
PID=0	10.2	12.3	Fine Grained Tan sand with Trace Pebbles	Wet				
	12.3	13.0	Medium to Course Grained Tan Sand and Pebbles	Wet				
	13.0	13.7	Fine Grained Tan Sand with Trace Pebbles	Wet				
	13.7	15	Medium to Course Grained Tan Sand with Trace Pebbles	Wet				
4	15	18.4	No Recovery					
PID=0	18.4	18.7	Tan and Orange Medium to Course Sand	Wet				
	18.7	18.95	Gray and Orange Clay	Dry				
	18.95	19.15	Gray and Orange Medium to Course Sand	Wet				
	19.15	20	Gray and Orange Fine to Medium Sand	Wet				
			Set Well at 18'					

Boring I	D: PPN	AW-03	Logger: MMP Geologist: JGC Date: 05/24/11 Pag	ge of
Site Nar	ne: Pro	cino Pla	Weather: Sunny, slight breeze, warm, humid	
DNREC	ID: D E	E-0344	Driller: Vironex	
Shallow Sample:			Sample Deep PPMW-03D Sample 7.5- Interval 0-5 Time: 09:18 Sample: Interval 9.5 Time	: 09:25
Core# PID	Start Depth	End Depth	Description	Moisture/ H ₂ O
1	0	2.2	No Recovery	
PID=0	2.2	4.25	Tan, Light Brown, Fine to Medium Sand, Trace Silt	Dry
	4.25	4.6	Laminate Light to Dark Brown, Fine to Medium Sand, Trace Silt	Dry
	4.6	5.0	Tan, Light Brown, Fine to Medium Sand, Trace Silt	Dry
2	5.0	7.0	No Recovery	
PID=0	7.0	9.5	Laminated/Varying Orange to Tan, Fine to Medium Sand	Dry
	9.5	10.0	Moist, Laminated/Varying Orange to Tan, Fine to Medium Sand, Trace Silt	Dry
3	10.0	11.1	No Recovery	
PID=0	11.1	13.0	Wet, Laminated/Varying Orange to Tan, Fine to Medium Sand, Trace Silt	Wet
	13.0	13.4	Wet, Tan, medium Gray Sand	Wet
	13.4		Wet, Medium to CG Sand, Tan	Wet
4	15.0	17.7	No Recovery	
PID=0	17.7	18.2	Wet, Medium to CG Sand, Tan	Wet
	18.2	18.7	Tan and Orange, Wet, MG Sand, Large Quartz Pebble @ 18.5	Wet
	18.7	18.8	Gray and Orange MG Sandy Clay	Moist
	18.8	19.0	Tan CG Sand	Wet
	19.0	19.2	Orange and Tan MG Sand, Trace Silt	Wet
	19.2	20.0	Laminated Tan, Black, Dark Brown FG to MG Sand	Wet
			Well Screened 8 – 18' bgs	
]		
1				

Boring	ID: PPN	1W-04	Logger: KAD Geologist: JGC Date: 05/24/11 Page	of
Site Na	me: Pro	cino Pla	ting Weather: Sunny, breeze, warm, humid	
DNRE(C ID: d	E-0344	Driller: Vironex	
Shallow Sample	v : PPM\		Sample Deep PP-MW04D Sample 8.35- Interval 1.2-3.2 Time: 12:50 Sample: Interval 9.25 Time:	12:55
Core# PID	Start Depth	End Depth	Description	Moisture/ H ₂ O
1	0	2.0	No Recovery	
PID=0	2.0	2.35	Brown Silty Sand and Gravel	Dry
	2.35	3.5	Mottled Tan and Brown FG/MG Sand	Dry
	3.5	4.05	Dark Brown FG/MG Sand	Dry
	4.05	5.0	Mottled Tan and Light Brown FG to MG Sand	Dry
2	5.0	6.5	No Recovery	
PID=0	6.5	6.7	Fallback	Dry
	6.7	8.0	Light Brown and Orange FG/MG Sand	Dry
	8.0	10.0	Tan FG/MG Sand with Random Orange Lamination	Dry
3	10.0	11.5	No Recovery (water @10')	
PID=0	11.5	12.0	Fallback	Damp
	12.0	13.8	Laminated Tan and Light Brown FG/MG Sand Heavy Mineral Lamination@13.55'	Wet
	13.8	14.8	Tan FG/MG Sand	Wet
	14.8	15.0	Tan MG/CG Sand	Wet
4	15.0	18.35	No Recovery	
PID=0	18.35	19.45	Tan MG to CG Sand, Trace Pebbles	Wet
	19.45	19.7	Tan FG to MG Sand	Wet
	19.7	20.0	Tan and Orange MG/CG Sand	Wet
·	SHOE @20.0		Orange and Grey Silty Clay	Wet

			Well Set @ 18'	

Boring l	ID: PPN	ЛW-05	Logger: KAD	Geologist:	JGC	Date: 05/25/11	Page	of		
Site Nar	me: Pro	cino Pla	ting	Weather	:: Sunny, li	ght breeze, warm, humic	ł			
DNREC	C ID: DE	C-0344	Driller: Vironex							
Shallow Sample		-05S	Sample Interval 2.55-4.55 Time:	1	ep PPMW mple:	Sample 9.0-10 -05D Interval & 11.4-12.4	Time:	11:09		
Core#	Start	End		Des	cription		***************************************	Moisture/		
PID	Depth	·	N. D	······································				H ₂ O		
1 PID=0	2.25	2.25	No Recovery					Des		
LID-0	2.55	2.55 3.3	Silty FG/MG Sand/Topso					Dry		
	3.3	3.95	Mottled Light and Dark E Tan and Light Brown FG		J Sand		***************************************	Dry Dry		
·····	3.95	5.93	Orangish Brown FG/MG					Dry		
2	5.0	6.5	No Recovery	Sallu				DIY		
<u></u> PID=0	6.5	6.9	Fallback				***************************************	Dry		
	6.9	8.35	1,	Mottled Tan and Brown FG/MG Sand						
	8.35	10.0		aminated Tan and Brown FG/MG Sand						
3	10.0	10.6	No Recovery							
PID=0	10.6	11.4	Fallback (Water @ 12-12							
	11.4	12.55	Mottled Tan and Brown N		***************************************			Dry		
	12.55	13.3	Mottled Tan and Brown N	//G/CG Sand				Wet		
	13.3	15.0	Tan FG/MG Sand with H	eavy Minera	Laminatio	ons		Wet		
4	15.0	17.5	No Recovery							
PID=0	17.5	18.15	Tan FG/MG Sand					Wet		
	18.15	18.5	Orangish Brown and Tan	FG/MG San	d, Trace Pe	bbles @ Bottom		Wet		
	18.5	20.0	Tan MG/VCG Sand, Trac	e Gravel				Wet		
					·····					
			Well Set @ 19'							
				200000000000000000000000000000000000000				***************************************		

Boring I	D: PPN	AW-06	Logger: KAD Geologist: JGC Date: 05/25/11 Page	of						
Site Nar	ne: Pro	cino Pla	ting Weather: Sunny, light breeze, warm, humid							
DNREC	ID: D e	C-0344	Driller: Vironex							
Shallow Sample			Sample Deep PPMW-06D Sample 8.0- Interval 3.25-5.0 Time: 12:25 Sample: Interval 10.0 Time:	12:31						
Core# PID	Start Depth	End Depth	Description	Moisture/ H ₂ O						
1	0	3.1	No Recovery							
PID=0	3.1	3.25	Topsoil and Roots	Dry						
	3.25	4.35	Mottled Tan, Light and Dark Brown FG/MG Sand, Trace Organics	Dry						
	4.35	5.0	Laminated Tan, Light and Dark FG/MG Sand	Dry						
2	5.0	7.15	No Recovery							
PID=0	7.15	7.55	Fallback							
	7.55	8.2	Tan and Orangist Brown FG/MG Sand, Trace Silt	Dry						
	8.2	9.0	Nottled Tan and Light Brown FG/MG Sand							
	9.0	10.0	Laminated Tan and Light Brown FG/MG Sand – Moist @ 10!							
3	10.0	10.75	No Recovery							
PID=0	10.75	11.8	Fallback							
	11.8	12.7	Tan FG/MG Sand	Wet						
	12.7	14.2	Mottled Tan and Brown FG/MG Sand, Trace Gravel	Wet						
	14.2	14.75	Tan FG/MG Sand, Trace Silt	Wet						
	14.75	15.0	Laminated Brown and Tan FG/MG Sand	Wet						
4	15.0	17.85	No Recovery							
PID=0	17.85	19.65	Tan MG/CG Sand with Trace Gravel, 2 Gravel lenses	Wet						
			@18.45-18.7 and 19.1 – 19.35							
	19.65	19.7	Orange Silty MG Sand	Wet						
	19.7	20.0	Mottled Grey and Orange Silty Clay with Trace FG Sand	Wet						
			Well Set @ 18'							

APPENDIX C WELL DEVELOPMENT FIELD LOGS

Procino Plating DE-0344

Site Name: Procino Plating Site No.: DE - 0344 Well No .: MW-01 Sample No.: 5/26/11 Samplers: Date: KAS/MMP/KAD Sunny/Hot/Humid Sample Weather: Time: No Sampling - Developing Well Comments: Start Time @ 1202pm WELL OBSERVATIONS Flush Mount: Y (Y/N)(Y/N)Locked: N Stick Up: (Y/N)PID: (PPM) 1" Well Diameter: (Inches) (Y/N)//(Inches) NAPL: **Condition of Casing:** Good/New **Condition of Pad:** Good/New Comments:

	FIELD MEASUREMENTS								
A.	Depth to Bottom:	17.87	Ft.						
В.	Depth to H ₂ O:	8.58	Ft. @ 1200						
C.	H ₂ O Column Height: (A – B)	9.29	Ft.						
D.	Purge Method Used:								
	3 Well Volumes or	Parameter							
	Parameter Stabilization	Stabilization							
E.	Well Factor: 0.041 x (Well Diameter) ²		(Inches) ²						
F.	One Well Volume: (C x D)		GPF (from sheet)						
G.	No. Volumes to be Purged:	3							
H.	Total Volume to be Purged: (F x G)	_	Gallons						
I.	Actual Volume Purged to Stabilization:		Gallons						

pН	COND	TURB	DO	TEMP	SAL	Comments
	(mS/cm)	(NTU)	(mg/ <i>l</i>)	('C)	(%)	
6.59	0.088	-	13.31	18.0	-	Turbidity Meter Malfunction
6.83	0.085		13.02	18.1	-	
6.86	0.084	Anna	12.05	18.7		Turbidity Based on Visual Clarity
6.35	0.089		11.82	19.0	_	
6.44	0.085	and and and and and and and and and and	12.05	18.7		
]	END OF	DEVELO	PMENT		<u>.</u>	
APPR(OXIMATE)	Ly 5 gai	LONS P	URGED		
	6.59 6.83 6.86 6.35 6.44	(mS/cm) 6.59 0.088 6.83 0.085 6.86 0.084 6.35 0.089 6.44 0.085 END OF	(mS/cm) (NTU) 6.59 0.088 - 6.83 0.085 - 6.86 0.084 - 6.35 0.089 - 6.44 0.085 - END OF DEVELO	(mS/cm) (NTU) (mg/l) 6.59 0.088 - 13.31 6.83 0.085 - 13.02 6.86 0.084 - 12.05 6.35 0.089 - 11.82 6.44 0.085 - 12.05 END OF DEVELOPMENT	(mS/cm) (NTU) (mg/l) (C) 6.59 0.088 - 13.31 18.0 6.83 0.085 - 13.02 18.1 6.86 0.084 - 12.05 18.7 6.35 0.089 - 11.82 19.0 6.44 0.085 - 12.05 18.7	pH COND (mS/cm) TURB (NTU) DO (mg/l) TEMP (C) SAL (%) 6.59 0.088 - 13.31 18.0 - 6.83 0.085 - 13.02 18.1 - 6.86 0.084 - 12.05 18.7 - 6.35 0.089 - 11.82 19.0 - 6.44 0.085 - 12.05 18.7 - END OF DEVELOPMENT

Site Name: Procino Plating Site No.: DE - 0344 MW02 Well No .: Sample No.: 5/26/11 KAD/KAS/MMP Date: Samplers: Sunny/Hot/Humid Weather: Sample Time: No Sample – Developing Well, Start at 1115 Comments:

WELL OBSERVATIONS

(Y/N)Flush Mount: Υ Locked: (Y/N)Stick Up: N (Y/N)PID: (PPM) 1" (Inches) Well Diameter: NAPL: (Y/N)//(Inches)New/Good Condition of Casing: Condition of Pad: New/Good Comments:

FIELD MEASUREMENTS

Ft. Depth to Bottom: A. 18.45 8.30 Ft. @ 1109 am В. Depth to H₂O: C. H₂O Column Height: (A – B) 10.15 Ft. Purge Method Used: D. 3 Well Volumes or Parameter Parameter Stabilization Stabilization (Inches)² E. Well Factor: 0.041 x (Well Diameter)² F. One Well Volume: (C x D) GPF (from sheet) G. No. Volumes to be Purged: 3 Total Volume to be Purged: (F x G) Gallons Н. Actual Volume Purged to Stabilization: Gallons T.

pН	COND	TURB	DO	TEMP	SAL	Comments
	(mS/cm)	(NTU)	(mg/ <i>l</i>)	(°C)	(%)	
5.55	0.229		12.01	18.5	_	Turbidity Meter Malfunction
5.61	0.164	***	11.52	18.5	_	
5.65	0.158	Species .	11.70	18.8		Turbidity Based on Visual Clear/Clarity
5.61	0.158	_	11.84	18.9	-	
5.98	0.167	na-F	11.80	19.2	***	
1	END OF	DEVELO	PMENT			
APPRO)XIMATEI	.Y 4.5 GA	LLONS	PURGED		
	5.55 5.61 5.65 5.61 5.98	(mS/cm) 5.55 0.229 5.61 0.164 5.65 0.158 5.61 0.158 5.98 0.167 END OF	(mS/cm) (NTU) 5.55 0.229 - 5.61 0.164 - 5.65 0.158 - 5.61 0.158 - 5.98 0.167 - END OF DEVELO	(mS/cm) (NTU) (mg/l) 5.55 0.229 - 12.01 5.61 0.164 - 11.52 5.65 0.158 - 11.70 5.61 0.158 - 11.84 5.98 0.167 - 11.80 END OF DEVELOPMENT	(mS/cm) (NTU) (mg/l) (°C) 5.55 0.229 - 12.01 18.5 5.61 0.164 - 11.52 18.5 5.65 0.158 - 11.70 18.8 5.61 0.158 - 11.84 18.9 5.98 0.167 - 11.80 19.2	(mS/cm) (NTU) (mg/l) (*C) (%) 5.55 0.229 - 12.01 18.5 - 5.61 0.164 - 11.52 18.5 - 5.65 0.158 - 11.70 18.8 - 5.61 0.158 - 11.84 18.9 - 5.98 0.167 - 11.80 19.2 - END OF DEVELOPMENT

Site Na	ame:	Procin	o Plating		S	Site No.:	DE -0344
Well N	lo.:	MW-0	3		S	Sample No.:	. where .
Date:		5/26/1			S	Samplers:	KAD/SAS/MMP
Weath	er:	Sunny/	Hot/Humi	id	S	Sample	
				***************************************	********	îimê:	······
Comm	ents:	Start T	ime: 1026	am			
		No Sar	nple – De	veloping '	Well		
***************************************		((()))	***************************************	WELL O		ATIONS	
				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Flush I	Mount:		Y	(Y/N)	Locked:	Y (Y/N)
Stick U	J p:		N	(Y/N	•	PID:	~ (PPM)
	Jiameter	••	1"	(Inch	es) l	NAPL:	- (Y/N)//(Inches)
Condit	tion of C	Casing:	New/G		•		
Condit	tion of P	ad:	New/G	lood			
Comm	ents:						
•	•			FIELD N	TEASUR	REMENTS	
A. l	Depth to	Bottom:				17.8	Ft.
B. I	Depth to	H_2O :				9.5	Ft. @ 1020 am
C. 1	H ₂ O Co	lumn Heigl	nt: (A – B)		8.3	Ft.
D. I	Purge M	1ethod Use	d:				
		3 Well V	olumes or	, e		Parameter	
		Parameter	Stabilizat	ion	S	tabilization	
	Well Fac	ctor: 0.041	x (Well D	iameter)2	***************************************		(Inches) ²
		ll Volume:	,		***************************************		GPF (from sheet)
		ames to be				3	
		olume to be	_	` '			Gallons
I. A	Actual V	Volume Pur	ged to St	abilizatio	n:	····	Gallons
,		·		·	***************************************		
Time	pН	COND	TURB	DO (mg/)	TEMP	2	Comments
1027	8.2	(mS/cm) 0.350	(NTU)	(mg/l)	(°C)	(%) 0.01	- Turbidity Meter Malfunction
1027	6.9	0.330		11.5	20.6 19.5	0.01	- I diolary Meter Manufiction
1037	6.0	0.164		11.45	19.3	0.0	- Turbidity Based on Visual
1047	5.6	0.130		10.94	19.1	0.0	Clear /Clarity
1037	3.0	V.143		10.74	17.3		Clear/Clarity
		ENDO	FDEVEL	ODMENIT	•		/
		ENDO	DEVEL	OFMENI			
	A DDD	OXIMATE	I V 45 G	ALLONG	DIIDGE	n	
	ALLK	OAHVIATE	LI 4.2 U/	JULUNS	LONGE	1.2	
			***************************************		***************************************		

Site Nam Well No. Date: Weather Commen	:	MW-04 5/26/11 Sunny/I	Hot/Humid iple – Dev 1400	veloping W	San San San Tim	~~~	DE -0344 SIRS	
Flush Mount: Stick Up: Well Diameter: Condition of Casing: Condition of Pad: Comments:			Y N 1" Good/N Good/N		PID		<u>Y</u>	(Y/N) (PPM) (Y/N)//(Inches)
***************************************		***************************************]	FIELD M	EASUREM	1ENTS		0
B. De C. H ₂ ! D. Pu E. We F. On G. No. H. Tot I. Act	Depth to Bottom: Depth to H ₂ O: H ₂ O Column Height: (A – B) Depth to H ₂ O: H ₂ O Column Height: (A – B) Depth to H ₂ O: But Well Volumes or But Parameter Stabilization But Well Factor: 0.041 x (Well Diameter) ² Depth to H ₂ O: Cone Well Volume: (C x D) Depth to Bottom: Cone Well Volume: (C x D) Depth to Bottom: Cone Well Volume to be Purged: Cone Volume to be Purged: (F x G)				Par Stab	7.79 1.56 5.23 ameter illization 3 -	Ft. Ft. 1400 Ft. (Inches) ² GPF (from shorts) Gallons Gallons	
Time	pН	COND (mS/cm)	TURB (NTU)	DO (mg/l)	TEMP ('C)	SAL (%)	Com	ments
1405	6.67	0.277	- (1410)	13.26	19.6	0	Turbidity Met	er
1410	6.90	0.212		12.38	19.4	0	Malfunction	
1415	6.70	0.208	-	12.33	19.3	0	Turbidity Base	ed
1420	420 6.56 0.214 - 11.89		19.0	0	On Clarity			
1430	6.76	0.218	-	12.06	19.2	0		
		END O	F DEVEL	OPMENT	,			
	1							
	APPI	ROXIMAT	E 3.5 GAI	LLONS P	URGED			

Site Name: Procino Plating Site No.: DE -0344 Well No .: MW-05 Sample No.: SIRS Date: 5/26/11 Samplers: Sunny/Hot/Humid Sample Weather: Time: No Sampling – Developing Well Comments: Start @ 1332 WELL OBSERVATIONS Flush Mount: Y (Y/N)Locked: (Y/N)N (Y/N)Stick Up: PID: (PPM) 1" (Y/N)//(Inches) Well Diameter: (Inches) NAPL: Condition of Casing: Good/New Good/New Condition of Pad:

		FIELD MEASUREMENTS	
_	_	 40.74	

Ft. A. Depth to Bottom: 18.34 В. Depth to H₂O: 16.18 Ft. @ 1332

C. H₂O Column Height: (A – B) 7.16 Ft.

Purge Method Used: D.

Comments:

3 Well Volumes or Parameter Parameter Stabilization Stabilization (Inches)² Well Factor: 0.041 x (Well Diameter)² E. F. One Well Volume: (C x D) GPF (from sheet) G. No. Volumes to be Purged: 3 H. Total Volume to be Purged: (F x G) Gallons I. Actual Volume Purged to Stabilization: Gallons

Time	pН	COND	TURB	DO	TEMP	SAL	Comments
		(mS/cm)	(NTU)	(mg/l)	(¹C)	(%)	
1335	6.26	0.284	nana	13.34	18.8	-	Turbidity Meter Malfunction
1340	6.43	0.249		12.68	18.8		
1345	6.66	0.236		12.48	18.7	-	Turbidity Based on Visual Clear/Clarity
1350	6.64	0.229	••••	12.57	19.0		
1355	6.69	0.215		12.52	19.0		
		END OF	DEVELO	PMENT			
***************************************	APPRO	OXIMATE	LY 3 GAI	LONS P	URGED		

Site Name:	Procino l	Plating		Site No.:	DE - 034	4		
Well No.:	MW-06			Sample No.:	incom.			
Date:	5/26/11			Samplers:	SIRS			
Weather:	Sunny/H	ot/Humid		Sample		Y (Y/N) (PPM)		
				Time:				
Comments:	No Samp	ling – De	veloping Wel	1				
	Start 🕢 1	250						
	***************************************	W	ELL OBSER	RVATIONS				
Flush Mount:		Y	(Y/N)	Locked:	Y	(Y/N)		
Stick Up:		N	(Y/N)	PID:	w.	(PPM)		
Well Diameter:		1"	(Inches)	NAPL:	·	(Y/N)//(Inches)		
Condition of Casin	ng:	Good/Ne	W					
Condition of Pad:		Good/Ne	W					
Comments:	د							
				· · · · · · · · · · · · · · · · · · ·		•		

	FIELD MEASUREMENTS								
A.	Depth to Bottom:	17.74	Ft.						
В.	Depth to H ₂ O:	10.43	Ft. @ 1250						
C.	H ₂ O Column Height: (A – B)	7.31	Ft.						
D.	Purge Method Used:								
	3 Well Volumes or	Parameter							
	Parameter Stabilization	Stabilization							
$\mathbf{E}.$	Well Factor: 0.041 x (Well Diameter) ²	4000	(Inches) ²						
F.	One Well Volume: (C x D)	- VANA	GPF (from sheet)						
G.	No. Volumes to be Purged:	3							
H.	Total Volume to be Purged: (F x G)		Gallons						
I.	Actual Volume Purged to Stabilization:		Gallons						

Time	pН	COND	TURB	DO	TEMP	SAL	Comments
		(mS/cm)	(NTU)	(mg/l)	(°C)	(%)	
1255	6.58	0.292		13.92	19.9		Turbidity Meter Malfunction
1303	6.80	0.187		13.83	18.7		
1308	6.61	0.202		12.90	18.1	_	Turbidity Based on Visual Clear/Clarity
1313	6.13	0.184		12.90	17.9		
1318	6.05	0.177		12.03	17.9	_	
1323	6.00	0.186		12.11	18.1		
		END OF	DEVELO	OPMENT			
	APPR	OXIMATE	LY 4 GA	<u>LLONS P</u>	URGED		

APPENDIX D GROUNDWATER SAMPLING FIELD LOGS

Procino Plating DE-0344

GROUNDWATER SAMPLING FIELD DATA SHEET

Site Name:	Procino Plating		Site No.:	DE - 0344	
Well No.:	MW-01		Sample No.:	PPMW09	
Date:	6/16/11		Samplers:	LGJ & KAS	
Weather:	Sunny - cloudy		Sample Time:	1330	
Comments:				1330	
	V	VELL OBS	ERVATIONS		
Flush Mount:	Y	(Y/N)	Locked:	Y	(Y/N)
Stick Up:	N	(Y/N)	PID:		(PPM)
Well Diameter:	1"	(Inches)	NAPL:	No	(Y/N)//(Inches)
Condition of Casin	g: Good				
Condition of Pad:	Good				
Comments:	Water v	ery cloudy	white purging		
		FIELD ME	ASUREMENTS		
	-	2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -			
A. Depth to Bot	tom:			Ft.	
B. Depth to H ₂ C) :		8.80	Ft.	
C. H ₂ O Column	Height: (A – B)			Ft.	
D. Purge Metho	d Used:				

Parameter

Stabilization

3

3

(Inches)²

Gallons

Gallons

GPF (from sheet)

Time	pН	COND	TURB	DO	TEMP	SAL	Comments
		(mS/cm)	(NTU)	(mg/l)	('C)	(%)	
1300	6.72	0.078		16.25	18.1	_	
1305	6.36	0.065		15.58	17.4	-	
1310	6.33	0.077		15.06	17.1		
1315	6.28	0.082		14.16	17.1		
1320	6.18	0.083		13.92	16.6		
1325	6.05	0.085	•••	13.48	16.7	-	
1523	6.15	0.091	-	14.41	18.5		
			^**				***************************************

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3 Well Volumes or

Parameter Stabilization

Well Factor: 0.041 x (Well Diameter)²

Total Volume to be Purged: (F x G)

Actual Volume Purged to Stabilization:

One Well Volume: (C x D)

No. Volumes to be Purged:

E.

F.

G.

H.

I.

GROUNDWATER SAMPLING FIELD DATA SHEET

Site Name:	Procino Plating		Site No.:	DE -0344	
Well No.:	MW-02	······································	Sample No.:	PPMW02	
Date:	6/16/11		Samplers:	KAS & JGC	
Weather:	Overcast - Sunny		Sample		
			Time:	1215	
Comments:					
				·	·
	V	VELL OBS	ERVATIONS		
Flush Mount:	Y	(Y/N)	Locked:	Y	(Y/N)
Stick Up:	N	_ (Y/N)	PID:		(PPM)
Well Diameter:	1"	(Inches)	NAPL:	N	(Y/N)//(Inches)
Condition of Casin	g: Good				300000000000000000000000000000000000000
Condition of Pad:	Good				
Comments:					

			~
Α.	Depth to Bottom:		_ Ft.
В.	Depth to H ₂ O:	8.52	Ft.
C.	H ₂ O Column Height: (A – B)	age or	Ft.
D.	Purge Method Used:		
	3 Well Volumes or	Parameter	
	Parameter Stabilization	Stabilization	
E.	Well Factor: 0.041 x (Well Diameter) ²		(Inches) ²
F.	One Well Volume: (C x D)		GPF (from sheet)
G.	No. Volumes to be Purged:	3	

2.5 - 3

Gallons

Gallons

FIELD MEASUREMENTS

Time	ρН	COND	TURB	DO	TEMP	SAL	Comments
		(mS/cm)	(NTU)	(mg/ <i>l</i>)	('C)	(%)	
1143	6.44	0.178		12.71	19.3	_	
1150	6.55	0.168		12.35	19.6		
1155	6.48	0.169	Time	12.31	18.1	-	
1200	6.49	0.169		12.33	18.6	_	•••••
1205	6.51	0.174	.,	12.66	18.9		
1240	6.53	0.169	_	14.03	19.5	-	

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Total Volume to be Purged: (F x G)

Actual Volume Purged to Stabilization:

H.

፤.

(Y/N)//(Inches)

GROUNDWATER SAMPLING FIELD DATA SHEET

Site Name: Procino Plating Site No.: DE -0344 Well No .: MW-03 PPMW03 Sample No.: Date: 06/16/11 Samplers: KAS & JGC Weather: Overcast 75° Sample Time: 1015 Comments: WELL OBSERVATIONS Flush Mount: Y (Y/N)(Y/N)Locked: Stick Up: N (Y/N)PID: (PPM) 1" N

Condition of Casing: Good

Condition of Pad: Good

Well Diameter:

MS/MSD Collected Comments:

FIELD MEASUREMENTS

NAPL:

(Inches)

Ft. Depth to Bottom: A. В. Depth to H₂O: 9.78 Ft. Ft. C. H₂O Column Height: (A – B)

Purge Method Used: D.

3 Well Volumes or Parameter Parameter Stabilization Stabilization (Inches)² Well Factor: 0.041 x (Well Diameter)² E. GPF (from sheet) One Well Volume: (C x D) F. G. No. Volumes to be Purged: 3 Gallons Total Volume to be Purged: (F x G) H.

3 I. Actual Volume Purged to Stabilization: Gallons

Time	pН	COND	TURB	DO (ma/)	TEMP	SAL	Comments
0945	6.03	(mS/cm) 0.141	(NTU)	(mg/ <i>l</i>) 9.46	(⁻ C) 18.5	(%)	
0950	5.87	0.141		8.85	17.8		
0955	5.80	0.137		8.37	17.6	-	
1000	5.71	0.137	***************************************	8.41	17.4	_	
1005	5.59	0.137		8.35	17.4		
1010	5.53	0.137		8.15	17.4		
1125	5.89	0.137		11.14	19.5	****	Purge rate was increased during sampling of PEST/PCB note for elevated DO

GROUNDWATER SAMPLING FIELD DATA SHEET

Site Name: Procino Plating Site No.: DE -0344 MW-04 Well No .: Sample No.: PPMW04 6/16/11 Samplers: Date: KAS & JGC 75° Weather: Overcast Sample Time: 0845 Comments: WELL OBSERVATIONS Flush Mount: Y (Y/N)Locked: (Y/N)N (Y/N)Stick Up: PID: (PPM) 1 " Well Diameter: (Inches) NAPL: (Y/N)//(Inches) Condition of Casing: Good Condition of Pad: Good Comments:

Α.	Depth to Bottom:		Ft.
В.	Depth to H ₂ O:	11.79	Ft.
C .	H ₂ O Column Height: (A – B)		Ft.
D.	Purge Method Used:		
	3 Well Volumes or	Parameter	
	Parameter Stabilization	Stabilization	_
E.	Well Factor: 0.041 x (Well Diameter) ²		(Inches) ²
F.	One Well Volume: (C x D)	•••	GPF (from sheet)
G.	No. Volumes to be Purged:	3	

2.5

Gallons

Gallons

0825 6.25 0.238	(NTU) - - -		(°C) 19.8 18.7	-	
0815 6.42 1.11 0820 6.51 0.268 0825 6.25 0.238		9.41	18.7	-	
0825 6.25 0.238				[
0825 6.25 0.238					
····		9.35	18.4		
0830 6.22 0.232		9.13	18.3	-	······································
0835 6.27 0.230		9.02	18.2	-	
0840 6.10 0.232	v	8.75	18.2		
6.23 0.231		9.62	18.9		

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Total Volume to be Purged: (F x G)

Actual Volume Purged to Stabilization:

H.

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GROUNDWATER SAMPLING FIELD DATA SHEET

Site Name:	Procino Plating		Site No.:	DE -0344						
Well No.:	MW05		Sample No.:	PPMW05 KAS & JGC						
Date:	6/17/11		Samplers:							
Weather:	Sunny & Warm		Sample							
			Time:	1055						
Comments:										
	V	VELL OBS	ERVATIONS							
Flush Mount:	Y	(Y/N)	Locked:	Y	(Y/N)					
Stick Up:	N	(Y/N)	PID:	.000.	(PPM)					
Well Diameter:	1"	(Inches)	NAPL:	N	(Y/N)//(Inches)					
Condition of Casing	g: Good									
Condition of Pad:	Good									
Comments:	***************************************	***************************************	***************************************							
	***************************************	***************************************	***************************************							

A.	Depth to Bottom:	Allen	Ft.
В.	Depth to H ₂ O:	11.40	Ft.
C.	H ₂ O Column Height: (A – B)		Ft.
D.	Purge Method Used:		
	3 Well Volumes or	Parameter	
	Parameter Stabilization	Stablization	
E.	Well Factor: 0.041 x (Well Diameter) ²	none	(Inches) ²
F.	One Well Volume: (C x D)	Time .	GPF (from sheet)

FIELD MEASUREMENTS

F.	One Well Volume: (C x D)		GPF (from sheet)
G.	No. Volumes to be Purged:	3	
H.	Total Volume to be Purged: (F x G)		Gallons
T.	Actual Volume Purged to Stabilization:	3	Gallons

Time	pН	COND (mS/cm)	TURB (NTU)	DO (mg//)	TEMP ('C)	SAL (%)	Comments
1025	6.48	0.199		11.52	19.1	- (70)	
1030	6.54	0.195		11.17	17.8	-	
1035	6.55	0.195	-	11.10	17.6	-	
1040	6.65	0.199		10.78	17.5		
1045	6.65	0.199		10.63	17.8	-	
1050	6.82	0.198	100 0	12.56	19.1		
***************************************	-						
	-						

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GROUNDWATER SAMPLING FIELD DATA SHEET

Site Name: Well No.: Date: Weather:	Procino Plating MW-06 6/17/11 Sunny & warm	80°	Site No.: Sample No.: Samplers: Sample	DE -0344 PPMW06 JGC & KAS						
Comments:			Time:	0945						
	V	VELL OBSE	RVATIONS	***************************************						
Flush Mount: Stick Up: Well Diameter: Condition of Casin Condition of Pad: Comments:	N 1" Good Good	(Y/N) (Y/N) (Inches)	Locked: PID: NAPL:	Y No	(Y/N) (PPM) (Y/N)//(Inches)					

A.	Depth to Bottom:		Ft.
В.	Depth to H ₂ O:	10.67	Ft.
C.	H ₂ O Column Height: (A – B)	-A-A-A	Ft.
D.	Purge Method Used:		····
	3 Well Volumes or	Parameter	
	Parameter Stabilization	Stabilization	
E.	Well Factor: 0.041 x (Well Diameter) ²	•••	(Inches) ²
F.	One Well Volume: (C x D)	About	GPF (from sheet)
G.	No. Volumes to be Purged:	3	
H.	Total Volume to be Purged: (F x G)	•••	Gallons
I.	Actual Volume Purged to Stabilization:	4	Gallons

Time	pН	COND	TURB	DO	TEMP	SAL	Comments
		(mS/cm)	(NTU)	(mg/ <i>l</i>)	('C)	(%)	
0915	6.12	0.149	400	10.77	18.7		
0920	6.09	0.158		11.62	17.8		
0925	6.07	0.163	www.	10.97	17.5		
0930	5.77	0.166	***	10.10	17.3		
0935	5.68	0.167		10.13	17.6	-	
0940	5.75	0.163		10.76	17.5	-	
1015	6.15	0.164		10.89	18.8	-	

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APPENDIX E SOIL SAMPLE SCREENING RESULTS

APPENDIX F CHAIN OF CUSTODY RECORDS

Environmental Laboratory Section - Division of Water Department of Natural Resources and Environmental Control 89 Kings Highway, Dover, DE 19901 (302) 739-9942

FIELD CHAIN OF CUSTODY

(Complete in BLUE ink)

COPY

Page 77 of 169



Client : Robert M. Schulte Report To : Robert M. Schulte

Address : DNREC - Division of Air & Waste Management Invoice To : Robert M. Schulte

391 Lukens Drive, New Castle, DE 19720 Account :

Phone No.: (302) 395-2600 ELS Order ID :

PROJECT NA	PROJECT NAME DE-0344 (Procino Plating)								·	T/=	ANA	LYSE	<u>s</u>			
SAMPLERS (P			20 2 24	······································	**************************************		No.			al & diss)						
(ELS Use Only) Lab Log No.	Client Sample Description	Sample Date	Sample Time	Matrix'	Comp	Grab	Of Con- tainers	VOA	SVOA	Messis (total						REMARKS
	Trip Blank	4/27/11	1200	SO		-	1	<u> </u>							····	
	PP-MW03-S	5-24-11	0918	SOIL			a	X	X	X					*******************************	
	PP-MWO3D		0925			ļ				Ц						
	PP-58035		1040			ļ				Ш					·	
	PP-SBØ3D		1045										.			
	PP-MWOOS		1100													
	bb-WM03D		1105												·	
	86-28032		1215													
	PP-5802D		1990										L			
	PP-5B015		1250	J.				1		IV					***************************************	
RELINQUISHI	ED BY: (signature)	DA	TE	TĮľ	ME	REC:	EIVED	BY:	(sign	iatur	re)		pooroonaannopoo	****************		DW - drinking water SL - sludge ER - equip, rinseate SO - soil GW - ground water SW - surface water Lab - lab water TI - tissue
COMMUNIC							v v	************				***************************************		**************		LW - fiquid waste WS - solid waste SE - sediment WW - waste water
COMMENTS:																Is laboration above a formation
																Is laboratory chain-of-custody required?
																Yes / No

ELS USE ONLY

Sample Conditions (circle response):

- 1. Samples match COC? Yes/No 2. Bottles supplied by ELS? Yes/No 3. Samples received broken/leaking? Yes/No 4. Cooler temp bottle 2-6 degrees? Yes/No/NA
- 5. Properly preserved? Yes/No 6. VOA/DO containers free of headspace? Yes/No/NA 7. Holding times expired? Yes/No 8. Volume sufficient for analysis? Yes/No

Coc:040101

FIELD CHAIN OF CUSTODY

Page 78 of 169

Environmental Laboratory Section - Division of Water Department of Natural Resources and Environmental Control 89 Kings Highway, Dover, DE 19901 (302) 739-9942

(Complete in BLUE ink)



Client: Robert M. Schulte

Address: DNREC - Division of Air & Waste Management Invoice To : Robert M. Schulte

391 Lukens Drive, New Castle, DE 19720 Account

Phone No.: (302) 395-2600 ELS Order ID :

PROJECT NAME DE-0344 (Procino Plating)									ANALYSES						·	·		**************************************
SAMPLERS (P	lease Print)	Ex. 4	agananananananana		<u> </u>	:		No.			ıl & diss)		***************************************					
(ELS Use Only) Lab Log No.	Client	Sample Description	Sample Date	Sample Time	Matrix'	Comp	Grab	Of Con- tainers	VOA	SVOA	Metals (total		***************************************				REM.	ARKS
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COMMENTS:	***************************************		£				£										1	
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ELS USE ONLY

Sample Conditions (circle response):

1. Samples match COC? Yes/No 2. Bottles supplied by ELS? Yes/No 3. Samples received broken/leaking? Yes/No 4. Cooler temp bottle 2-6 degrees? Yes/No/NA

5. Properly preserved? Yes/No 6. VOA/DO containers free of headspace? Yes/No/NA 7. Holding times expired? Yes/No 8. Volume sufficient for analysis? Yes/No

Environmental Laboratory Section - Division of Water Department of Natural Resources and Environmental Control 89 Kirgs Highway, Dover, DE 19901 (302) 739-9942

FIELD CHAIN OF CUSTODY

(Complete in BLUE ink)

Page 79 of 1/69/

COPY



Client: Robert M. Schulte

Address: DNREC - Division of Air & Waste Management

391 Lukens Drive, New Castle, DE 19720

Phone No.: (302) 395-2600

ELS Order ID:

PROJECT NAN	ROJECT NAME DE-0344 (Procino Plating)										ANALYSES				
SAMPLERS (PI	······						No.			a & diss)	1				
(ELS Use Only) Lab Log No.	Client Sample Description	Sample Date	Sample Time	Matrix*	Comp	Grab	Of Con- tainers	VOA	SVOA	Metals (total					REMARKS
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	PP-5BØ5S		1009												
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	66-WMQ2D		1109												
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RELINQUISHI	ED BY: (signature)	DA	DATE			REC	EIVED	D BY: (signature)						*****************	 DW - drinking water SL - sludge ER - equip. rinseate SO - soil GW - ground water SW - surface water Lab - lab water TI - tissue
COMMENTS:														•••••••••••••••••••••••••••••••••••••••	LW - liquid waste WS - solid waste SE - sediment WW - waste water
COMMENTS:															Is laboratory chain-of-custody required? Yes / No

ELS USE ONLY

Sample Conditions (circle response):

1. Samples match COC? Yes/No 2. Bottles supplied by ELS? Yes/No 3. Samples received broken/leaking? Yes/No 4. Cooler temp bottle 2-6 degrees? Yes/No/NA

5. Properly preserved? Yes/No 6. VOA/DO containers free of headspace? Yes/No/NA 7. Holding times expired? Yes/No 8. Volume sufficient for analysis? Yes/No

FIELD CHAIN OF CUSTODY

(Complete in BLUE ink)

call

Page 80 of 169



Client : Robert M. Schulte Report To : Robert M. Schulte

Address : DNREC - Division of Air & Waste Management Invoice To : Robert M. Schulte

391 Lukens Drive, New Castle, DE 19720 Account :

Phone No.: (302) 395-2600 ELS Order ID :

PROJECT NAM	DE-0344 (Procino Plating)								ANALYSES				S	1	T		
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(ELS Use Only) Lab Log No.	Clien	t Sample Description	Sample Date	Sample Time	Matrix*	Comp	Grab	Of Con- tainers	VOA	SVOA	Metals (total						REMARKS
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				***************************************		· · · · · · · · · · · · · · · · · · ·					**********	*****	***************************************			****************	Lab - lab water TI - tissue LW - liquid waste WS - solid waste
·							٠										SE - sediment WW - waste water
COMMENTS:			,											1,1			
																	Is laboratory chain-of-custody required?
																	Yes / No

ELS USE ONLY

Sample Conditions (circle response):

- 1. Samples match COC? Yes/No 2. Bottles supplied by ELS? Yes/No 3. Samples received broken/leaking? Yes/No 4. Cooler temp bottle 2-6 degrees? Yes/No/NA
- 5. Properly preserved? Yes/No 6. VOA/DO containers free of headspace? Yes/No/NA 7. Holding times expired? Yes/No 8. Volume sufficient for analysis? Yes/No

FIELD CHAIN OF CUSTODY

Page 81 of 169

(Complete in BLUE ink)



Client: Robert M. Schulte

Address: DNREC - Division of Archive Management

Brownice To Robert M. Schulte

391 Lukens Drive, New Castle, DE 19720

Phone No.: (302) 395-2600

ELS Order ID: //0604/

PROJECT NAM	ИE	DE-0344	Procin	o Plat	ing)	***************************************			••••		*****	ANAL	YSES		—	
SAMPLERS (Please Print Ex. 4 CBI					No.	4		ब & तांड)								
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Noposti son	PPMW	03	6/16/11	1015	GW			12	<u> </u>	/	~			1		USE FOR MS/MSD
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1100041-000			6/17/11	1055	GW			7		<u> </u>	y /					
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Ex	. 4	CBI	6-17		125	55		E					E	31		ER - cquip. rinseate SO - soil GW - ground water SW - surface water Lab - lab water TI - tissue LW - liquid waste WS - solid waste SE - sediment WW - waste water
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	*******************************										•••••					Is laboratory chain-of-custody required? Yes/No

ELS USE ONLY

Sample Conditions (circle response):

1. Samples match COC? Yes No 2. Bottles supplied by ELS? Yes No 3. Samples received broken/leaking? Yes 10 4. Cooler temp bottle 2-6 degrees? Yes/No/NA 5. Properly preserved? Yes No 6. VOA/DO containers free of headspace? Yes/No/NA 7. Holding times expired? Yes 10 8. Volume sufficient for analysis? Yes No

Edison, New Jersey 08817

Phone: (732) 549-3900 Fax: (732) 549-3679

<u>TestAmerica</u>

CHAIN OF CUSTODY / ANALYSIS REQUEST

THE LEADER IN ENVIRONMENTAL TEST	ING	***************************************			, , , , , ,			1 1 0mm 3m2	, 100° 0000 4	w 1					Ş	Page	1 01 0
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PP-MWØ2S		1100							/								
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Preservation Used: (1 = ICE) 2 = HCI, 3	3 = H ₂ SO ₄ , 4 = HNC) ₃ , 5 = Na(ЭН		10											***************************************	
6 = Other	, 7 = Other	***************************************		Water							***************************************	************					XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
Special Instructions	•••••••••••••••••••••••••••••••••••••••	***************************************	*********************	***************************************	~~huuuuuu	(h	·2·······	•	haannaan	lennennennenne		58:		lasinta t	≕ittered	I /Vaá	.A.(\0
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Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

TAL - 0016 (0408)

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CHAIN OF CHREODY / ANALYSIS DECHEST

Phone:	(732)	549-3900	Fax: (732)	549-3679

THE LEADER IN ENVIRONMENTAL TE	STING	IIIV OF	CU3	IODI	/ /414	MLI.	احاد	neu	OE.	3 1					Pá	age lor	
Name (for report and invoice)			s Name (Site/Project Identification PROCINO PLATING (DE-0344)									
BOB SCHULTE			-EC-	2157	>			PRC	CIN	10 F	CH.	TIM	10	(DE	-03	44)	
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Preservation Used: (1 = ICE) = HC					10											***************************************	
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Laboratory Certifications: New J	ersey (12028), New	York (11	452),	Pennsyl	vania (68-522	2), C	onnec	cticut	(PH-	0200)	, Rh	ode I	sland	(132).	TAL - 0016 (0408	

Massachusetts (M-NJ312), North Carolina (No. 578)

777 New Durham Poage 84 of 169

Edison, New Jersey 08817

Phone: (732) 549-3900 Fax: (732) 549-3679

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CHAIN OF CUSTODY / ANALYSIS REQUEST

THE LEADER IN ENVIRONMENTAL TEST	ring												F	age of
Name (for report and invoice)		Sampler						Site/Proje					/ h ==	
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PP-5005D		1440												
PP-MW055		1100												
PP-MW05D		1109					1							
PP-SBOGS		1330												
PP-5B06D		1334												
PP-MWOGS		1225												
PP-MWOGD	V	1861	V	W	V									
Preservation Used: (1 = ICE), 2 = HCI,	3 = H ₂ SO ₄ , 4 = HNO ₃	, 5 = Na(DH	Soil	10					•				10000000000000000000000000000000000000
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Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0408)

Edison, New Jersey 08817

Phone: (732) 549-3900 Fax: (732) 549-3679

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THE LEADER IN ENVIRONMENTAL TE	STING	СНА	IN OF	cus	TODY	/AN	ALY:	SIS	REQ	JEST	*				Pageof
Name (for report and invoice)		***************************************		s Name (***************************************	*************	Site/Pro	ject Ide	ntification	7	***********	***************************************	
BOB SCHULTE	,		DNE	2-EC-	SIR	2			PRI	CIN	O PL	AT	No	(DE	=-0344)
Company	***************************************		P. O. #			**************************************	***************************************		State (I	ocation	of site):	NJ:		NŸ:	Other:
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Preservation Used: (1 = ICE, 2)= HC	1, 3 = H ₂ SO ₄ ,	, 4 = HNO ₃	, 5 = Na(ЭН	Soil:	15									
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Laboratory Certifications: New J	ersey (1202	8), New	York (11	452), F	ennsylv	ania (68-522	2). C	onnecti	cut (PF	l-0200),	Rho	de Isl	and (1)	32). TAL - 0016 (0408)

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CHAIN OF CUSTODY / ANALYSIS REQUEST

THE LEADER IN ENVIRONMENTAL TESTIN	IG.												Pageof		
Name (for report and invoice)	[K	F - <i>z</i>	4 ^	, D I		<u>-</u>	Site/Project							
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307 - 305-2600 3/2		1 Week Other			PESTICI 10	_	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\								
2017-1253-2000 215	- 32/3 - 46 66	011/01	L	No. of.	75	الا الا	CVA						Sample		
Sample Identification	Date	Time	Matrix	Cont.	2	<u>\</u>							Numbers		
PPMWOL	1/4/11	1330	Gw	5	*/	2	٤,								
PPMW07_	1.11.11	3	3	5	1./_		***								
PPMW03	6/16/1	1015	6W	14			سمره								
PAMNOS	6/16/11	0845	GWI	5											
PPMWOS	6/12/11	1055	GW	5											
PPMWOG	ZHAL	Sec.	1	5	i	3,4	3/								
DIIP-I	华人公	NIZ.	GW	5											
,															
		***************************************										1			
Preservation Used: 1 = ICE, 2 = HCl, 3	= H ₂ SO ₄ , 4 = HNO	, 5 = Na	OH	Soit:											
6 = Other			and the	Water:			5								
Special Instructions US PPA	WING FAD	115/1	1< N				***************************************	÷		\A/:	stetaM rate	Filtara	d (Yes/No)?		
	Company		D	ate / Tim	e	TP.		_		hererererer	Company	*************	***************************************		
Ex. 4 CBI	DNREC		4/2/	111/4	126		Ξχ	7.4	C	BL	7	835	Anna		
	Company	***************************************	10	ate / Tim	e						Company	.4444	a marinim reconstruction de la construction de la c		
2)					2)										
Relinquished by	Сотрапу	Date / Time		е	Recei	ved b	У	····	***************************************	Company	***************************************	***************************************			
3)				***************************************	3)				•						
Relinquished by	Company	Date / Time		е	Rece	ived b	У			Company					
4)		200000				4)									
Laboratory Certifications: New Jerse	ey (12028), New	York (1	1452), F	ennsylv	vania (68-52	2), °C	onnecticut	(PH-020	00), Rh	ode Island	1 (132). TAL - 00:6 (0408		

Massachusetts (M-NJ312), North Carolina (No. 578)

APPENDIX G SOIL SAMPLE ANALYTICAL RESULTS

APPENDIX H GROUNDWATER SAMPLE ANALYTICAL RESULTS

APPENDIX I DRINKING WATER SAMPLE ANALYTICAL RESULTS

CHEMICAL FORM

Field Blank ID Number:

Delaware Purblige Bookin 1690 oratory 30 Sunnyside Road Smyrna, DE 19977 (302) 223-1520

Bar Cc * \$ 2 6 7 6 8 9 *	(302) 223-1520 TEST Request: Routine Complaint Confirmation* X Special MRT Field Blank Split Duplicate Replacement*								
Collection Time: (military) 1258 Collection Date:5/19/10	*Confirmation & *Replacement Requires Original Sample #								
PWSID #PRIVATE Supply Name	me: Ex. 6 Personal Privacy (PP)								
Facility Name: (For example: Treatment Sample Point Ex. 6 Personal Privacy (Facility # OUTSIDE THE (For example: TP001, S5001, D5001, or WL001/DNREC ID#) Sample Point # OUTSIDE TOP (For example: DEP001, MRT001, SP042, or WT001)								
AST/Operator # Collector's Name Collector's Phone Collector's Fax #									
601 / DE-331 Ex. 4 CBI	741~ Ex. 6 Personal Privacy (PP)741-8631								
Free Chlorinemg/L Total (Chlorine mg/L Not Chlorinated								
pH Field Test Monitoring Sched	lule: Mthly. Qtr. Ann. Tri. Oth.								
Analyte Group: Please check box of in	dividual test required.								
	JLL CHEM: (mg/L) Dulfate Dutine Chem. plus: Alk, Hardness, TDS]								
TRACE: (mg/L)	∩ □ Cu □ Anions □ CN □ NO ₂ , F, Cl]								
	esticides								
□ 531 □ 504 □ Gross Alpha	□ Radium 226/228 □ Other:								

Division of Public Health Office of Drinking Water
Blue Hen Corporate Center
655 Bay Road, Suite 203

655 Bay Road, Suite 203 Dover, DE 19901

Ph: (302) 741-8630, FAX: (302) 741-8631 or (302) 661-7228



Delaware Health and Social Services Division of Public Health Laboratory 169

30 Sunnyside Road Smyrna, Delaware 19977 Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): S267689 (383009)

Property Owner/Facility Ex. 6 Personal Privacy (PP)

PWSID: PRIVATE

Sample Point: OUTSIDE TAP

Sample Location: Ex. 6 Personal Privacy (PP)

Sample Type: SF

Chlorination: Not Chlorinated or

Tested

Date Collected:

05/19/2010 12:58 pr

Collected By:

Ex. 4 CBI

Collector ID:

601

Date Received: 05/20/2010 12:55 pt

Sampled pH:

Free CI: Total CI:

Specimen Note:

************************************			and the first first section of the first section of the section of
Test	Result	MCL	Date Released
EPA200.8	iginan naman sega se seas anaga gi sepesaan seman seman anaga anaga gamengan pengunan manan manan gara s	. www.chanalanda.com/	e ne na na nangar se nelegilik siletile kita kilolik nelegilik nelegilik penala ya di bahasila nelembe m
Uranium	<0.0005 mg/L	<=0.03	05/21/2010
Manganese	0.2378 mg/L	<=0.05	05/21/2010
Barium	0.4015 mg/L	<=2.0000	05/21/2010
Antimony	<0.0005 mg/L	<=0.006	05/21/2010
Thallium	<0.0005 mg/L	<=0.002	05/21/2010
Selenium	<0.010 mg/L	<=0.05	05/21/2010
Chromium	0.0028 mg/L	<=0.1	05/21/2010
Lead	0.0027 mg/L	<=0.015	05/21/2010
Mercury	<0.0005 mg/L	<=0.002	05/21/2010
Cadmium	<0.0005 mg/L	<=0.005	05/21/2010
Beryllium	0.0008 mg/L	<=0.004	05/21/2010
Arsenic	<0.0005 mg/L	<=0.01	05/21/2010
Nickel	0.0134 mg/L		05/21/2010





Delaware Health and Social Services Page 92 of 169

Date Collected:

Collected By:

Collector ID:

Sampled pH:

Free CI:

Total CI:

Date Received:

05/19/2010-12:58 pt-

Ex. 4 CBI

05/20/2010 12:55 pi

601

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): S267689-(383009)-

Ex. 6 Personal Privacy (PP) Property Owner/Facility

PWSID: **PRIVATE**

Sample Point:

OUTSIDE TAP Sample Location:

Sample Type:

Specimen Note:

SP

Chlorination:

Tested

Not Chlorinated or

Ex. 6 Personal Privacy (PP)

Sample previously released. Sample report ammended to include zinc values as requested by ODW.

Test	Result	MCL	Date Released
EPA200.8	e an menda andre e simmerskipter og sampet en er en en en en en en en en en en eller før e. Harjar er en er be En en en en en en en en en en en en en en	ar tan kanta ang tilikung mejeri ang elemente mening akan dikanagangan panjanga. T	nder og gennesjerringskregningska <mark>de</mark> nge ligter av gytter mengetinderek i som på
Arsenic	<0.0005 mg/L	<=0.01	05/28/2010
Nickel	0.0134 mg/L		05/28/2010
Beryllium	0.0008 mg/L	<=0.004	05/28/2010
Cadmium	<0.0005 mg/L	<=0.005	05/28/2010
Chromium	0.0028 mg/L	<=0.1	05/28/2010
Lead	0.0027 mg/L	<=0.015	05/28/2010
Thallium	<0.0005 mg/L	<=0.002	05/28/2010
Selenium	<0.010 mg/L	<=0.05	05/28/2010
Mercury	<0.0005 mg/L	<=0.002	05/28/2010
Antimony	<0.0005 mg/L	<=0.006	05/28/2010
Uranium	<0.0005 mg/L	<=0.03	05/28/2010
Manganese	0.2378 mg/L	<=0.05	05/28/2010
Previously Reported As:	0.2378 mg/L		
Zinc	0.0357 mg/L	<=5	05/28/2010
Barium	0.4015 mg/L	<=2.0000	05/28/2010
Previously Reported As:	0.4015 mg/L		



CHEMICAL FORM

Field Blank ID Number:

Delaware Publicated Laboratory 30 Sunnyside Road Smyrna, DE 19977

Bar Code Number:	TEST Request:
F * \$ 2 6 7 6 8 8 *	 □ Routine □ Complaint □ Confirmation* □ Field Blank □ Split □ Duplicate □ Replacement*
Collection Time: (military) 13 00	*Confirmation & *Replacement Requires Original Sample #
Collection Date:5/19/10	
PWSID #PRIVATE Supply Name	Ex. 6 Personal Privacy (PP)
Facility Name: Ex. 6 Personal P	rivacy (PP) outside tap P001, SS001, DS001, or WL001/DNREC ID#)
Sample Point <u>or</u>	Sample Point # Outside TAD (For example: DEP001, MRT001, SP042, or WT001)
AST/Operator # Collector's Name	
601 / DE-331_ Ex. 4 CBI	741 Ex. 6 Personal Privacy (PP)741-8631
Free Chlorinemg/L Total Ch	lorinemg/L 🕅 Not Chlorinated
pH Field Test Monitoring Schedul	le: 🗆 Mthly. 🗆 Qtr. 🗆 Ann. 🗆 Tri. 🗆 Oth
Analyte Group: Please check box of indi	vidual test required.
	L CHEM: (mg/L) Sulfate Itine Chem. plus: Alk, Hardness, TDS]
☐ TRACE: (mg/L) ☐ Mn [As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Sb, Tl]	☐ Cu ☐ Anions ☐ CN [NO ₃ , NO ₂ , F, CI]
UVOCS TTHM HAA5 Pest EPA 524.2 EPA 552.2 EPA 50	ticides
□ 531 □ 504 □ Gross Alpha □	Radium 226/228

Division of Public Health Office of Drinking Water Blue Hen Corporate Center 655 Bay Road, Suite 203

Dover, DE 19901

Ph: (302) 741-8630, FAX: (302) 741-8631 or (302) 661-7228



Delaware Health and Social Services Division of Public Health Laboratory 94 of 169

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): S267688 (383008)

Ex. 6 Personal Privacy (PP)

PWSID:

Property Owner/Facility:

OUTSIDE TAP Sample Point:

Sample Location:

Ex. 6 Personal Privacy (PP)

Sample Type:

Chlorination:

Not Chlorinated or

Tested

PRIVATE

Date Collected:

05/19/2010 1:00 pn

Collected By: Ex. 4 CBI Collector ID: 601

Date Received:

05/20/2010 12:55 pt

Sampled pH:

Free CI:

Total CI:

Specimen Note:

Test MCL Date Released Result SM4500CN-F Cyanide < 0.2 <0.05 mg/L 05/21/2010



CHEMICAL FORM

Delaware Pullshigh Resileth Lesboratory
30 Sunnyside Road
Smyrna, DE 19977
(302) 223-1520

Dave v	(302) 223-1320									
F * \$ 2 7 0 1 8 3 *	TEST Request: Routine Complaint Confirmation* X Special MRT Field Blank Split Duplicate Replacement*									
Collection Time: (military) 1304	*Confirmation & *Replacement Requires Original Sample #									
Collection Date:5/19/10	,									
PWSID #PRIVATE Supply Nan	ne: Ex. 6 Personal Privacy (PP)									
Facility Name: (For example: Treatment Ex. 6 Personal Privacy (PP										
Sample Point	Sample Point # outside tap									
AST/Operator # Collector's Nam	(For example: DEP001, MRT001, SP042, or WT001) 1e Collector's Phone Collector's Fax #									
601 / DE-331_ Ex. 4 CE	31 741 Ex. 6 Personal Privacy (PP) 741-8631									
Free Chlorinemg/L Total C	Chlorinemg/L Not Chlorinated									
pH Field Test Monitoring Schedu	ule: 🗆 Mthly. 🗆 Qtr. 🗈 Ann. 🗅 Tri. 🗆 Oth									
Analyte Group: Please check box of inc	dividual test required.									
	LL CHEM: (mg/L) Guifate Dutine Chem. plus: Alk, Hardness, TDS]									
☐ TRACE: (mg/L) ☐ Mn [As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Sb, Ti]	□ Cu □ Anions □ CN [NO₃, NO₂, F, CI]									
VOCs TTHM HAA5 Pes	sticides									
□ 531 □ 504 □ Gross Alpha	□ Radium 226/228 □ Other:									
Field Blank ID Number:										

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Blue Hen Corporate Center
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Delaware Health and Social Services Page 96 of 169

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): S270183-(383007)

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

PWSID: PRIVATE

Sample Point: OUTSIDE TAP

Sample Location:

Ex. 6 Personal Privacy (PP)

Sample Type:

Chlorination: Not Chlorinated or

Tested

Date Collected:-

--05/19/2010---1:04-pn-

Collected By:

Ex. 4 CBI

Collector ID:

601

Date Received:

05/20/2010 12:55 pi

Sampled pH:

Free CI:

Total CI:

Specimen Note:

Test	Result	MCL	Date Released
EPA524.2	Singhama, a samasa sa samangan mana sananan hari mani melamb	en an jarding a men se it they with some a literature for the a see as a seguine about	jána afa Ní an aptar cheann acan i námh i ainmeanagh ac mha
1,2,4-trichlorobenzene	<0.5 μg/L	<80.000	05/24/2010
P-dichlorobenzene	<0.5 µg/L	<75.000	05/24/2010
O-dichlorobenzene	<0.5 μg/L	<600.000	05/24/2010
1,1,2-trichloroethane	<0.5 μg/L	<5.000	05/24/2010
Toluene	<0.5 μg/L	<1,000.000	05/24/2010
Tetrachloroethylene	<0.5 μg/L	<5.000	05/24/2010
Chlorobenzene	<0.5 µg/L	<100.000	05/24/2010
Ethylbenzene	<0.5 μg/L	<700.000	05/24/2010
Xylenes	<0.5 µg/L	<=10,000.000	05/24/2010
Styrene	<0.5 μg/L	<100,000	05/24/2010
Cis-1,2-dichloroethylene	<0.5 μg/L	<70.000	05/24/2010
1,1,1-trichloroethane	<0.5 µg/L	<200.000	05/24/2010
Carbon tetrachloride	<0.5 μg/L	<5.000	05/24/2010
1,2-dichloropropane	<0.5 μg/L	<5.000	05/24/2010
Trichloroethylene	<0.5 μg/L	<5.000	05/24/2010
1,2-dichloroethane	<0.5 µg/L	<5.000	05/24/2010
Benzene	<0.5 µg/L	<5.000	05/24/2010
Vinyl Chloride	<0.5 μg/L	<2.000	05/24/2010
1,1-dichloroethylene	<0.5 μg/L	<7.000 s.	05/24/2010
Dichloromethane	<0.5 μg/L	<5.000	05/24/2010
Trans-1,2-dichloroethylene	<0.5 µg/L	<100.000	05/24/2010
Dichlorodifluormethane	<0.5 µg/L		05/24/2010
Chloromethane	<0.5 μg/L		05/24/2010
Bromomethane	<0.5 μg/L		05/24/2010
Chloroethane	<0.5 μg/L		05/24/2010



X_SingleSample.rpt

Page 1 of 3

Print Date: 05/25/2010



Delaware Health and Social Services Page 97 of 169

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

-Label ID (Sample #): <u>\$270183 (383007)</u>

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

PWSID: PRIVATE

Sample Point: OUTSIDE TAP

Sample Location: Ex. 6 Personal Privacy (PP)

Sample Type:

Chlorination: Not Chlorinated or Tested

Date-Collected:-

.05/19/2010__1:04_pn_

Collected By:

Ex. 4 CBI

Collector ID:

601

Date Received:

05/20/2010 12:55 pi

Sampled pH:

Free CI:

Total CI:

Specimen Note:

Test	Result	MCL	Date Released
Trichlorfluoromethane	<0.5 μg/L	ara yanganaktarin bermanye a u qiri mbay akkale mis k	05/24/2010
Methyl tert-butyl ether (MTBE)	<0.5 μg/L		05/24/2010
1,1-dichloroethane	<0.5 μg/L		05/24/2010
2,2-dichloropropane	<0.5 μg/L		05/24/2010
1,1-dichloropropene	<0.5 μg/L		05/24/2010
Bromodichloromethane	<0.5 μg/L		05/24/2010
Dibromomethane	<0.5 µg/L		05/24/2010
Cis-1,3-dichlorpropene	<0.5 μg/L		05/24/2010
Chloroform	<0.5 μg/L		05/24/2010
Bromochloromethane	<0.5 µg/L		05/24/2010
Trans-1,3-dichloropropene	<0.5 μg/L		05/24/2010
1,3-dichloropropane	<0.5 μg/L *		05/24/2010
Chlorodibromomethane	<0.5 μg/L	,	05/24/2010
Ethylene dibromide (EDB)	<0.5 μg/L		05/24/2010
Bromoform	<0.5 μg/L		05/24/2010
Isopropylbenzene	<0.5 μg/L		05/24/2010
1,1,2,2-tetrachlorethane	<0.5 μg/L		05/24/2010
1,2,3-trichloropropane	<0.5 μg/L		05/24/2010
Bromobenzene	<0.5 µg/L		05/24/2010
N-propylbenzene	<0.5 μg/L		05/24/2010
O-chlorotoluene	<0.5 μg/L		05/24/2010
1,3,5-trimethylbenzene	<0.5 μg/L		05/24/2010
P-chlorotoluene	<0.5 μg/L		05/24/2010
Tert-butylbenzene	<0.5 μg/L	The second section of the second section of the second section second section sections and the second section	05/24/2010
1,2,4-trimethylbenzene	<0.5 µg/L		05/24/2010
Sec-butylbenzene	<0.5 µg/L		05/24/2010





Delaware Health and Social ServicesPage 98 of 169

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): S270183-(383007)

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE

Sample Point: Sample Location: **OUTSIDE TAP**

Ex. 6 Personal Privacy (PP)

Sample Type:

SP

Chlorination:

Not Chlorinated or

Date Gollected:-

05/19/2010__1:0a_pn_

Collected By:

Ex. 4 CBI

Collector ID:

601

Date Received: 05/20/2010 12:55 pi

Sampled pH:

Free CI:

Total CI:

Specimen Note:

est	Result	MCL	Date Released
P-isopropyItoluene	<0.5 µg/L	indiplostina varate (1. il. vide, avec y a serfere dei anaerisetamegeele nyte,	05/24/2010
M-dichlorobenzene	<0.5 μg/L		05/24/2010
1,1,1,2-tetrachloroethane	<0.5 μg/L		05/24/2010
N-butylbenzene	<0.5 μg/L		05/24/2010
Dibromochloropropane	<0.5 µg/L	•	05/24/2010
Hexachlorobutadiene	<0.5 µg/L		05/24/2010
Naphthalene	<0.5 μg/ L		05/24/2010
1,2,3-trichlorobenzene	<0.5 µg/L		05/24/2010

CHEMICAL FORM

Delaware Public Health Laboratory 30 Sunnyside Road Smyrna, DE 19977 (302) 223-1520

	(302) 223-1520		
F * \$ 2 6 7 6 9 1 * M	TEST Request: Routine Complaint Confirmation* X Special MRT Field Blank Split Duplicate Replacement*		
Collection Time: (military) 1225	*Confirmation & *Replacement Requires Original Sample #		
Collection Date:5/19/10			
PWSID #PRIVATE Supply Nar	ne: Ex. 6 Personal Privacy (PP)		
Facility Name: (For example: Treatment Ex. 6 Personal Privacy (F	Facility # 5 1 de tap (For example: TP001, SS001, DS001, or WL001/DNREC ID#)		
Sample Point _	Sample Point # OT .		
	Collector's Phone Collector's Fax #		
Free Chlorinemg/L Total Chlorinemg/L Not Chlorinated			
pH Field Test Monitoring Schedule: Mthly. Qtr. Ann. Tri. Oth			
Analyte Group: Please check box of inc	dividual test required.		
	LL CHEM: (mg/L) Dutine Chem. plus: Alk, Hardness, TDS]		
[As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Sb, Ti]	□ Cu □ Anions □ CN [NO ₃ , NO ₂ , F, CI]		
□ VOCs □ TTHM □ HAA5 □ Pe EPA 524.2 EPA 552.2 EPA	sticides		
□ 531 □ 504 □ Gross Alpha	□ Radium 226/228 □ Other:		
Field Blank ID Number:	a samundida samundus nederida nederida nederida nederida nederida nederida nederida nederida nederida nederida T		

Division of Public Health Office of Drinking Water
Blue Hen Corporate Center
655 Bay Road, Suite 203
Dover, DE 19901

Ph: (302) 741-8630, FAX: (302) 741-8631 or (302) 661-7228



Delaware Health and Social Services Division of Public Health Laboratory 100 of 169

30 Sunnyside Road Smyrna, Delaware 19977 Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

PRIVATE

Label ID (Sample #): S267691 (383011)

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

Date Collected: 05/19/2010 12:25 pt Ex. 4 CBI Collected By:

Collector ID:

601

Date Received:

05/20/2010 12:55 pi

Sampled pH:

Free CI:

Total CI:

Ex. 6 Personal Privacy (PP)

Sample Type:

Sample Point:

Sample Location:

PWSID:

OT

Chlorination: Not Chlorinated or

Tested

Specimen Note:

- Service sound dispress sound the service of the s			
Test	Result	MCL	Date Released
EPA200.8	m see felle franceste suit og else afrikkelinelineline et hetderfled energementen den elsembe med militakke kkon	and a service of the second service of the service	aranas jeriša ar rainsi op grännins sakips, ossakieki aisa, ni pris sak
Barium	0.1316 mg/L	<=2.0000	05/21/2010
Manganese	0.1723 mg/L	<=0.05	05/21/2010
Uranium	<0.0005 mg/L	<=0.03	05/21/2010
Nickel	0.0020 mg/L		05/21/2010
Arsenic	<0.0005 mg/L	<=0.01	05/21/2010
Beryllium	<0.0005 mg/L	<=0.004	05/21/2010
Mercury	<0.005 mg/L	<=0.002	05/21/2010
Lead	<0.0005 mg/L	<=0.015	05/21/2010
Chromium	0.0038 mg/L	<=0.1	05/21/2010
Cadmium	<0.0005 mg/L	<=0.005	05/21/2010
Selenium	<0.010 mg/L	<=0.05	05/21/2010
Antimony	<0.0005 mg/L	<=0.006	05/21/2010
Thallium	<0.0005 mg/L	<=0.002	05/21/2010



Delaware Health and Social Services age 101 of 169

Date Collected: 05/19/2010-12-25-ni-

601

Collected By:

Collector ID:

Sampled pH:

Free CI:

Total CI:

Date Received:

Ex. 6 Personal Privacy (PP)

05/20/2010 12:55 pr

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

-Label ID (Sample #): S267691-(383011)

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE OT

Sample Point: Sample Location:

Ex. 6 Personal Privacy (PP)

Sample Type:

SP

Chlorination:

Not Chlorinated or

Tested

Specimen Note:

Sample previously released. Sample report ammended to include zinc values as requested by

ODW.

Test	Result	MCL	Date Released
EPA200.8	ka milana ar ja Sarah di di milangaran ng kinadinan ar <mark>a sandini</mark> na a bilangila ang ga S	higgine – a mandagha na sissa dhan siissa a siini kanamata Manamana ng kakil na kanamat si k	angles, and exercise control of a target to be a superior and highly self-
Barium	0.1316 mg/L	<=2.0000	05/28/2010
Previously Reported As:	0.1316 mg/L		
Zinc	0.0211 mg/L	<=5	05/28/2010
Manganese	0.1723 mg/L	<=0.05	05/28/2010
Previously Reported As:	0.1723 mg/L		
Uranium	<0.0005 mg/L	<=0.03	05/28/2010
Selenium	<0.010 mg/L	<=0.05	05/28/2010
Thallium	<0.0005 mg/L	<=0.002	05/28/2010
Antimony	<0.0005 mg/L	<=0.006	05/28/2010
Lead	<0.0005 mg/L	<=0.015	05/28/2010
Mercury	<0.0005 mg/L	<=0.002	05/28/2010
Chromium	0.0038 mg/L	<=0.1	05/28/2010
Beryllium	<0.0005 mg/L	<=0.004	05/28/2010
Cadmium	<0.0005 mg/L	<=0.005	05/28/2010
Nickel	0.0020 mg/L		05/28/2010
Arsenic	<0.0005 mg/L	<=0.01	05/28/2010



CHEMICAL FORM

Delaware Public Health Laboratory 30 Sunnyside Road Smyrna, DE 19977 (302) 223-1520

F * \$ 2 6 7 6 9 0 *	TEST Request: Routine Complaint Confirmation* X Special MRT Field Blank Split Duplicate Replacement*		
Collection Time: (military) 1223	*Confirmation & *Replacement Requires Original Sample #		
Collection Date:5/19/10			
PWSID #_PRIVATE Supply Name	Ex. 6 Personal Privacy (PP)		
Facility Name: (For example: Treatment Ex. 6 Personal Privacy (PI	:		
Sample Point	Sample Point # owide to (For example: DEP001, MRT001, SP042, or WT001)		
AST/Operator # Collector's Name			
601 / DE-331_ Ex. 4 CBI	741 Ex. 6 Personal Privacy (PP)741-8631		
Free Chlorinemg/L Total Chlorinemg/L Dot Chlorinated			
pH Field Test Monitoring Schedule: Mthly. Qtr. Ann. Tri. Oth			
Analyte Group: Please check box of indi	vidual test required.		
□ ROUTINE: (mg/L) □ FULL CHEM: (mg/L) □ Sulfate [Routine Chem. plus: Alk, Hardness, TDS]			
☐ TRACE: (mg/L) ☐ Mn [As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Sb, Ti]	Cu Anions [NO ₃ , NO ₂ , F, Cl]		
OCS TTHM HAA5 Pest EPA 524.2 EPA 552.2 EPA 50	ticides		
□ 531 □ 504 □ Gross Alpha □	Radium 226/228		
Field Blank ID Number:	in the second se		

Division of Public Health Office of Drinking Water
Blue Hen Corporate Center
655 Bay Road, Suite 203
Dover, DE 19901

Ph: (302) 741-8630, FAX: (302) 741-8631 or (302) 661-7228



Delaware Health and Social Services

Division of Public Health Laborat 8 pg e 103 of 169

Date Collected:

05/19/2010 12:23 pt

05/20/2010 12:55 pi

601

Ex. 4 CBI

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Office of Drinking Water Agency:

Label ID (Sample #): S267690 (383010)

Property Owner/Facility: Ex. 6 Personal Privacy (PP) PWSID:

Collected By:

PRIVATE Collector ID:

Sample Point: OUTSIDE TAP Date Received: Sample Location:

Sampled pH: Ex. 6 Personal Privacy (PP)

Free CI: Sample Type: Total CI: Chlorination: Not Chlorinated or

Tested

Specimen Note:

Test Result . MCL Date Released SM4500CN-F Cyanide <0.05 mg/L < 0.2 05/21/2010

X_SingleSample.rpt

Page 1 of 1

Print Date: 05/24/2010

CHEMICAL FORM

Field Blank ID Number:

Delaware Public Health Laboratory 30 Sunnyside Road Smyrna, DE 19977 (302) 223-1520

Bar Code No.	TEST Request: Routine Complaint Confirmation* X Special MRT Field Blank Split Duplicate Replacement*			
*Confirmation & *Replacement Requires Original Sample #				
PWSID #PRIVATE Supply Name Ex. 6 Personal Privacy (PP)				
Facility Name: (For example: Treatment Ex. 6 Personal Privacy (PP) Facility # 5 utside the (For example: TP001, SS001, DS001, Or WL001/DNREC ID#)				
AST/Operator # Collector's Name 601 / DE-331_ Ex. 4 CBI	ample Point #			
Free Chlorinemg/L Total Ch nH Field TestMonitoring Schedul				
	pH Field Test Monitoring Schedule: □ Mthly. □ Qtr. □ Ann. □ Tri. □ Oth Analyte Group: Please check box of individual test required.			
□ ROUTINE: (mg/L) □ FULL CHEM: (mg/L) □ Sulfate [NO ₃ , NO ₂ , Fe, Na, pH, F, Cl,] □ Routine Chem. plus: Alk, Hardness, TDS]				
☐ TRACE: (mg/L) ☐ Mn [As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Sb, Tl]	□ Cu □ Anions □ CN [NO ₃ , NO ₂ , F, Cl]			
VOCS TTHM HAA5 Pest	cicides			
□ 531 □ 504 □ Gross Alpha □	Radium 226/228			

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Tested

Delaware Health and Social Services Page 105 of 169

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water S270184 (383012) LabeLID (Sample #): **Date Collected:** 05/19/2010 1:28 pn Property Owner/Facilit Ex. 6 Personal Privacy (PP) Collected By: Ex. 4 CBI PWSID: PRIVATE Collector ID: 601 Sample Point: OT Date Received: 05/20/2010 12:55 pi Sample Location: Sampled pH: Ex. 6 Personal Privacy (PP) Sample Type: Free CI: Chlorination: Not Chlorinated or Total CI:

Specimen Note:

Test	Result	MCL	Date Released
EPA524.2	same dana itasilarsika sibir i di nesa ata siria e dana tisakin dinin	isakaka a aresunina anna properties en kaiten en anna pistoria en aresunitaria.	Karillander (n. 1919). Helger voorsige koming (trous voorsie en 1900 in 1900 in 1900 in 1900 in 1900 in 1900 i
Dichlorodifluormethane	<0.5 μg/L		05/24/2010
Chloromethane	<0.5 µg/L		05/24/2010
Bromomethane	<0.5 μg/L		05/24/2010
Chloroethane	<0.5 μg/L		05/24/2010
Trichlorfluoromethane	<0.5 µg/L		05/24/2010
Methyl tert-butyl ether (MTBE)	<0.5 µg/L		05/24/2010
1,1-dichloroethane	<0.5 µg/L		05/24/2010
2,2-dichloropropane	<0.5 µg/L		05/24/2010
1,1-dichloropropene	<0.5 µg/L		05/24/2010
Bromodichloromethane	<0.5 µg/L		05/24/2010
Dibromomethane	<0.5 μg/L		05/24/2010
Cis-1,3-dichlorpropene	<0.5 μg/L		05/24/2010
Chloroform	<0.5 μg/L	•	05/24/2010
Bromochloromethane	<0.5 μg/L		05/24/2010
Trans-1,3-dichloropropene	<0.5 μg/L		05/24/2010
1,3-dichloropropane	<0.5 μg/L		05/24/2010
Chlorodibromomethane	<0.5 μg/L	;	05/24/2010
Ethylene dibromide (EDB)	<0.5 µg/L		05/24/2010
1,1,1,2-tetrachloroethane	<0.5 μg/L		05/24/2010
Bromoform	<0.5 μg/L		05/24/2010
Isopropylbenzene	<0.5 μg/L		05/24/2010
1,1,2,2-tetrachlorethane	<0.5 μg/L		05/24/2010
1,2,3-trichloropropane	<0.5 µg/L	was a second from from the second second second second second second second second second second second second	05/24/2010
Bromobenzene	<0.5 μg/L		05/24/2010
N-propylbenzene	<0.5 μg/L		05/24/2010
	2		



X SingleSample.rpt

Page 1 of 3

Print Date: 05/25/2010



Delaware Health and Social Services 106 of 169 Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): S270184 (383012)

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE

Sample Point:

OT

Sample Location:

Ex. 6 Personal Privacy (PP)

Sample Type:

SP

Chlorination:

Not Chlorinated or

Tested

Date Collected:

05/19/2010 1:28 on

Collected By:

Ex. 4 CBI

Collector ID:

601

Date Received:

Sampled pH:

05/20/2010 12:55 pt

Free CI: Total CI:

Specimen Note:

Test	Result	MCL	Date Released
O-chlorotoluene	<0.5 µg/L	ent er i The Maria (Thinking), mitter Lime Ambreconn a she ga tha m hùistain taiss cagaint lead, tag	05/24/2010
1,3,5-trimethylbenzene	<0.5 µg/L		05/24/2010
P-chlorotoluene	<0.5 μg/L		05/24/2010
Tert-butylbenzene	<0.5 µg/L		05/24/2010
1,2,4-trimethylbenzene	<0.5 μg/L		05/24/2010
Sec-butylbenzene	<0.5 µg/L		05/24/2010
P-isopropyltoluene	<0.5 μg/L		05/24/2010
M-dichlorobenzene	<0.5 μg/L		05/24/2010
N-butylbenzene	<0.5 μg/L		05/24/2010
Dibromochloropropane	<0.5 µg/L		05/24/2010
Hexachlorobutadiene	<0.5 μg/L		05/24/2010
Naphthalene	<0.5 μg/L		05/24/2010
1,2,3-trichlorobenzene	<0.5 μg/L		05/24/2010
Trans-1,2-dichloroethylene	<0.5 μg/L	<100.000	05/24/2010
Dichloromethane	<0.5 µg/L	<5.000	05/24/2010
1,1-dichloroethylene	<0.5 µg/L	<7.000	05/24/2010
Vinyl Chloride	<0.5 μg/ L	<2.000	05/24/2010
1,2-dichloroethane	<0.5 µg/L	<5.000	05/24/2010
Trichloroethylene	<0.5 µg/L	<5.000	05/24/2010
1,2-dichloropropane	<0.5 µg/L	<5.000	05/24/2010
Carbon tetrachloride	<0.5 µg/L	<5.000	05/24/2010
Benzene	<0.5 µg/L	<5.000	05/24/2010
1,1,1-trichloroethane	<0.5 µg/L	<200.000	05/24/2010
Cis-1,2-dichloroethylene	<0.5 µg/L	<70.000	05/24/2010
Styrene	<0.5 μg/L	<100.000	05/24/2010
P-dichlorobenzene	<0.5 µg/L	<75.000	05/24/2010





Delaware Health and Social Services Page 107 of 169

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Office of Drinking Water Agency:

Label ID.(Sample #): S270184 (383012).

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE Sample Point: OT

Sample Location:

Sample Type:

Chlorination:

SP Not Chlorinated or

Tested

.Date_Collected:_

.05/19/2010__1:28_pn

Collected By:

Ex. 4 CBI

Collector ID:

601

Date Received:

05/20/2010 12:55 pt

Sampled pH:

Free CI: Total CI:

Specimen Note:

Test	Result	MCL	Date Released
Xylenes	<0.5 µg/L	<=10,000.000	05/24/2010
Ethylbenzene	<0.5 μg/L	<700.000	05/24/2010
Chlorobenzene	<0.5 µg/L	<100.000	05/24/2010
Tetrachloroethylene	<0.5 μg/L	<5.000	05/24/2010
Toluene	<0.5 μg/L	<1,000.000	05/24/2010
1,1,2-trichloroethane	<0.5 μg/L	<5,000	05/24/2010
O-dichlorobenzene	<0.5 μg/L	<600.000	05/24/2010
1,2,4-trichtorobenzene	<0.5 μg/L	<80.000	05/24/2010



CHEMICAL FORM

Field Blank ID Number:

Delaware Public 110 eabith 1 69 boratory 30 Sunnyside Road Smyrna, DE 19977 (302) 223-1520

F * s 2 6 7 6 9 3 *	TEST Request: Routine Complaint Confirmation* X Special MRT Field Blank Split Duplicate Replacement*	
Collection Time: (military) 3:35	*Confirmation & *Replacement Requires Original Sample #	
Collection Date:5/19/10		
PWSID #PRIVATE Supply Na		
Facility Name: Ex. 6 Personal Privacy (For example: Treatment	(PP) Facility # Outside to (For example: TP001, SS001, DS001, or WL001/DNREC ID#)	
Sample Point <u>ST</u>	Sample Point # Owtsile + O	
AST/Operator # Collector's Na		
601 / DE-331_ Ex. 4 C	BI 741-Ex. 6 Personal Privacy (Pr)741-8631	
Free Chlorinemg/L Total	Chlorinemg/L Not Chlorinated	
pH Field Test Monitoring Sche	edule: Mthly. Qtr. Ann. Tri. Oth	
Analyte Group: Please check box of i	individual test required.	
□ ROUTINE: (mg/L) □ FULL CHEM: (mg/L) □ Sulfate [Routine Chem. plus: Alk, Hardness, TDS]		
TRACE: (mg/L)	In Cu Anions CN [NO ₃ , NO ₂ , F, Cl]	
	Pesticides	
□ 531 □ 504 □ Gross Alpha	□ Radium 226/228 □ Other:	

Division of Public Health Office of Drinking Water Blue Hen Corporate Center 655 Bay Road, Suite 203 Dover, DE 19901

Ph: (302) 741-8630, FAX: (302) 741-8631 or (302) 661-7228



Delaware Health and Social Services Division of Public Health Laboratory 109 of 169

Date Collected:

30 Sunnyside Road Smyrna, Delaware 19977 Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

S267693 (383016) Label ID (Sample #):

Collected By: Property Owner/Facility: Ex. 6 Personal Privacy (PP) PWSID:

PRIVATE Collector ID: 601

Sample Point: OUTSIDE TAP Date Received: 05/20/2010 12:55 pt

Sample Location: Sampled pH: Ex. 6 Personal Privacy (PP)

Sample Type: Free CI:

Chlorination: Not Chlorinated or Total CI: Tested

Specimen Note:

Test	Result	MCL	Date Released
EPA200.8	t <mark>andrede Till dans menne demokt</mark> en medeligt en stelle kommente en er <mark>fan et k</mark> entelen sjûne en daar fante f	la frankris val. Eva sk. listori va va sk. komitis manisti ka 1600 a skil vreda kome van som s	e la gradici de combine sur apropries un establicativa de la la combinación de la combinación de la combinación
Barium	0.7692 mg/L	<=2.0000	05/21/2010
Uranium	<0.0005 mg/L	<=0.03	05/21/2010
Thallium	<0.0005 mg/L	<=0.002	05/21/2010
Manganese	0.1699 mg/L	<=0.05	05/21/2010
Selenium	<0.010 mg/L	<=0.05	05/21/2010
Antimony	<0.0005 mg/L	<=0.006	05/21/2010
Chromium	0.0023 mg/L	<=0.1	05/21/2010
Cadmium	0.0005 mg/L	<=0.005	05/21/2010
Lead	0.0009 mg/L	<=0.015	05/21/2010
Mercury	<0.0005 mg/L	<=0.002	05/21/2010
Arsenic	<0.0005 mg/L	<=0.01	05/21/2010
Beryllium	0.0040 mg/L	<=0.004	05/21/2010
Nickel	0.0109 mg/L		05/21/2010



X_SingleSample.rpt

Page 1 of 1

Print Date: 05/24/2010

05/19/2010 1:35 pn

Ex. 4 CBI



Delaware Health and Social Service Page 110 of 169

Date Collected:

Collected By:

Collector ID:

Sampled pH:

Free CI:

Total CI:

Date Received:

05/19/2010 1:35 pn

Ex. 4 CBI

05/20/2010 12:55 pt

601

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): \$267693 (383016)

Property Owner/Facility Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE

Sample Point:

OUTSIDE TAP

Sample Location:

Ex. 6 Personal Privacy (PP)

Sample Type:

SI.

Chlorination:

Not Chlorinated or

Tested

Specimen Note:

Sample previously released. Sample report ammended to include zinc values as requested by

ODW.

Test	Result	MCL MCL	Date Released
EPA200.8	1987, por la contrata de la companya de la companya de la companya de la companya de la companya de la company La companya de la companya de la companya de la companya de la companya de la companya de la companya de la co	is the group control growth and the control control to the control of the control	the man of a manifold agree of the force of proceedings and the trans-
Arsenic	<0.0005 mg/L	<=0.01	05/28/2010
Nickel	0.0109 mg/L		05/28/2010
Cadmium	0.0005 mg/L	<=0.005	05/28/2010
Beryllium	0.0040 mg/L	<=0.004	05/28/2010
Chromium	0.0023 mg/L	<=0.1	05/28/2010
Lead	0.0009 mg/L	<=0.015	05/28/2010
Antimony	<0.0005 mg/L	<=0.006	05/28/2010
Thallium	<0.0005 mg/L	<=0.002	05/28/2010
Mercury	<0.0005 mg/L	<=0.002	05/28/2010
Selenium	<0.010 mg/L	<=0.05	05/28/2010
Uranium	<0.0005 mg/L	<=0.03	05/28/2010
Manganese	0 .1699 mg/L	<=0.05	05/28/2010
Previously Reported As:	0.1699 mg/L		
Zinc	1.3600 mg/L	< = 5	05/28/2010
Previously Reported As:	1.2160 mg/L		
Barium	0.7692 mg/L	<=2.0000	05/28/2010
Previously Reported As:	0.7692 mg/L		



Field Blank ID Number:

Delaware Paglic 114 altiful 69 boral 30 Sunnyside Ri Smyrna, DE 19977 (302) 223-1520

Bar Cc F * \$ 2 6 7 6 9 2 *	TEST Request: Routine Complaint Confirmation* X Special MRT Field Blank Duplicate Replacement*
Collection Time: (military) <u>1345</u> Collection Date:5/19/10	*Confirmation & *Replacement Requires Original Sample #
PWSID #PRIVATE Supply Nam	2)
Facility Name: Ex. 6 Personal Privacy (PI (For example: Treatment Plai Sample Point	Facility # OT (For example: TP001, SS001, DS001, or WL001/DNREC ID#) Sample Point # OT (For example: DEP001, MRT001, SP042, or WT001)
AST/Operator # Collector's Nam 601 / DE-331_ Ex. 4 Cl	e Collector's Phone Collector's Fax #
	hlorinemg/L
Analyte Group: Please check box of ind	
	L CHEM: (mg/L) Usine Chem. plus: Alk, Hardness, TDS]
☐ TRACE: (mg/L) ☐ Mn [As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Sb, Tl]	☐ Cu ☐ Anions ☐ CN [NO ₃ , NO ₂ , F, CI]
VOCs TTHM HAA5 Pes	Sticides
☐ 531 ☐ 504 ☐ Gross Alpha	□ Radium 226/228 □ Other:

Division of Public Health Office of Drinking Water
Blue Hen Corporate Center
655 Bay Road, Suite 203

655 Bay Road, Suite 203 Dover, DE 19901



Delaware Health and Social Services Division of Public Health Laboratory 112 of 169

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): S267692 (383014)

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE

Sample Point:

Sample Location:

Ex. 6 Personal Privacy (PP)

Sample Type:

Chlorination:

Not Chlorinated or

Tested

Date Collected:

05/19/2010 1:45 pn

Ex. 4 CBI

Collected By:

Collector ID:

601

Date Received:

05/20/2010 12:55 pt

Sampled pH:

Free CI:

Total CI:

Specimen Note:

Test	Result	MCL	Date Released
SM4500CN-F	e (na increasió), signas incontriguençi di materiam minimente en mineria e mentembrio mente en international	<mark>ayan kan manga palama</mark> nga a salah sa yang pangan kan mana menjak ya sengga sensembah meli 1995, 1995.	entheurithernes and the production arises a commercial adolescent at a supercontrol
Cyanide	<0.05 mg/L	<0.2	05/21/2010



X_SingleSample.rpt

Page 1 of 1

Print Date: 05/24/2010

Field Blank ID Number:

Delaware Pageci Haadth 69 boratory 30 Sunnyside Road Smyrna, DE 19977 (302) 223-1520

Bar C(TEST Request: Routine Complaint Field Blank Special Duplicate Replacement*		
Collection Time: (military) /350	*Confirmation & *Replacement Requires Original Sample #		
Collection Date:5/19/10			
PWSID #PRIVATE Supply Na	ame: Ex. 6 Personal Privacy (PP)		
Facility Name: Ex. 6 Personal Privac			
Sample Point OT	Sample Point #OT		
AST/Operator # Collector's Na 601 / DE-331_ Ex. 4 C			
Free Chlorinemg/L Total			
pH Field Test Monitoring Sche	edule: Mthly. Qtr. Ann. Tri. Oth		
Analyte Group: Please check box of i	ndividual test required.		
□ ROUTINE: (mg/L) □ FULL CHEM: (mg/L) □ Sulfate [Routine Chem. plus: Alk, Hardness, TDS]			
☐ TRACE: (mg/L) ☐ Mn ☐ Cu ☐ Anions ☐ CN [As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Sb, Tl] [NO₃, NO₂, F, Cl]			
. 1	Pesticides		
□ 531 □ 504 □ Gross Alpha	□ Radium 226/228 □ Other:		

Division of Public Health Office of Drinking Water
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Delaware Health and Social Services 114 of 169 Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): S270185 (383015) Date Collected: 05/19/2010 1:50 pn

Property Owner/Facility: Ex. 6 Personal Privacy (PP) Collected By: Ex. 4 CBI

PWSID: PRIVATE Collector ID:
Sample Point: OT Date Received:

Sample Point: OT Date Received: 05/20/2010 12:55 pt

Sample Location: Ex. 6 Personal Privacy (PP) Sampled pH:

Sample Type:SPFree CI:Chlorination:Not Chlorinated orTotal CI:

Tested

Specimen Note:

Test	Result	MCL	Date Released
EPA524.2	i kanada man miliningan kanada na kanada na mana man man man man man man man ma	i ma antonio i siste statorici ma il que papa terma la substitución il mindidentiza esperi	ga sahariga kelemandan kecala dipada dan di didigih di salah di daga da s
O-dichlorobenzene	<0.5 μg/L	<600.000	05/24/2010
1,2,4-trichlorobenzene	<0.5 μg/ L	<80.000	05/24/2010
1,1,2-trichloroethane	<0.5 μg/L	<5.000	05/24/2010
Toluene	<0.5 μg/L	<1,000.000	05/24/2010
Chlorobenzene	<0.5 μg/ L	<100.000	05/24/2010
Tetrachloroethylene	<0.5 μg/L	<5.000	05/24/2010
Ethylbenzene	<0.5 μg/L	<700.000	05/24/2010
Xylenes	<0.5 μg/L	<=10,000.000	05/24/2010
P-dichlorobenzene	<0.5 μg/L	<75.000	05/24/2010
Styrene	<0.5 μg/L	<100.000	05/24/2010
Cis-1,2-dichloroethylene	<0.5 μg/L	<70.000	05/24/2010
1,1,1-trichloroethane	<0.5 μg/L	<200.000	05/24/2010
Carbon tetrachloride	<0.5 μg/L	<5.000	05/24/2010
1,2-dichloropropane	<0.5 µg/L	<5.000	05/24/2010
Trichloroethylene	<0.5 μg/L	<5.000	05/24/2010
1,2-dichloroethane	<0.5 µg/L	<5.000	05/24/2010
Benzene	<0.5 μg/L	<5.000	05/24/2010
Vinyl Chloride	<0.5 μg/L	<2.000	05/24/2010
1,1-dichloroethylene	<0.5 µg/L	<7.000	05/24/2010
Dichloromethane	<0.5 µg/L	<5.000	05/24/2010
Trans-1,2-dichloroethylene	<0.5 μg/ L	<100.000	05/24/2010
Dichlorodifluormethane	<0.5 µg/L		05/24/2010
Chloromethane	<0.5 μg/L		05/24/2010
Bromomethane	<0.5 µg/L		05/24/2010
Chloroethane	<0.5 µg/L		05/24/2010



X_SingleSample.rpt

Page 1 of 3

Print Date: 05/25/2010

601



Delaware Health and Social Services age 115 of 169

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): S270185 (383015)_

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE

Sample Location:

Ex. 6 Personal Privacy (PP)

Sample Type:

Sample Point:

SP

Chlorination:

Not Chlorinated or

Tested

Date Collected:

05/19/2010 1:50 pn Ex. 6 Personal Privacy (PP)

Collected By: Collector ID:

CO4

601

05/20/2010 12:55 pi

Date Received: Sampled pH:

Free CI: Total CI:

Test	Result	MCL 1	Date Released
Trichlorfluoromethane	, taganing an in production of the collection and the collection of the collection o	e - Sopa and Leave option applicable that the separation and the construct the second section and the experience of the second section and the experience of the second section and the section and the second section and the section and	05/24/2010
Methyl tert-butyl ether (MTBE)	<0.5 µg/L		05/24/2010
1,1-dichloroethane	<0.5 µg/L		05/24/2010
2,2-dichloropropane	<0.5 μg/L		05/24/2010
1,1-dichloropropene	<0.5 µg/L		05/24/2010
Bromodichloromethane	<0.5 µg/L		05/24/2010
Dibromomethane	<0.5 µg/L		05/24/2010
Cis-1,3-dichlorpropene	<0.5 μg/L		05/24/2010
Chloroform	<0.5 µg/L		05/24/2010
Bromochloromethane	<0.5 µg/L		05/24/2010
Trans-1,3-dichloropropene	<0.5 µg/L		05/24/2010
1,3-dichtoropropane	<0.5 µg/L		05/24/2010
Chlorodibromomethane	<0.5 µg/L		05/24/2010
Ethylene dibromide (EDB)	<0.5 μg/L		05/24/2010
Bromoform	<0.5 µg/L		05/24/2010
Isopropylbenzene	<0.5 µg/L		05/24/2010
1,1,2,2-tetrachlorethane	<0.5 µg/L		05/24/2010
1,2,3-trichloropropane	<0.5 µg/L		05/24/2010
Bromobenzene	<0.5 μg/L		05/24/2010
N-propylbenzene	<0.5 µg/L		05/24/2010
O-chlorotoluene	<0.5 µg/L	i	05/24/2010
1,3,5-trimethylbenzene	<0.5 μg/L		05/24/2010
P-chlorotoluene	<0.5 µg/L		05/24/2010
Tert-butylbenzene	<0.5 µg/L		05/24/2010
1,2,4-trimethylbenzene	<0.5 µg/L		05/24/2010
Sec-butylbenzene	<0.5 μg/L		05/24/2010





Delaware Health and Social Services age 116 of 169 Division of Public Health Laboratory

30 Sunnyside Road Smyrna; Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water Label.ID.(Sample.#):. S270185 (383015)

Property Owner/Facility: Ex. 6 Personal Privacy (PP) PWSID:

PRIVATE

OT

Sample Point: Sample Location:

Ex. 6 Personal Privacy (PP

Sample Type:

Not Chlorinated or

Tested

Date Collected:

05/19/2010 1:50 pn

Collected By:

Date Received:

Sampled pH:

Ex. 4 CBI

Collector ID: 601

05/20/2010 12:55 pt

Free CI: Total CI:

Specimen Note:

Chlorination:

Test	Result	MCL	Date Released
P-isopropyltoluene		k klasicom kira ka az stranom odko modunadi od obe od diko ek bis sunid se	05/24/2010
M-dichlorobenzene	<0.5 µg/L		05/24/2010
1,1,1,2-tetrachloroethane	<0.5 µg/L		05/24/2010
N-butylbenzene	<0.5 μg/L		05/24/2010
Dibromochloropropane	<0.5 μg/L		05/24/2010
Hexachlorobutadiene	<0.5 µg/L		05/24/2010
Naphthalene	<0.5 µg/L		05/24/2010
1,2,3-trichtorobenzene	<0.5 µg/L		05/24/2010



Field Blank ID Number:

Delaware Public Health Laboratory
30 Sunnyside Road
Smyrna, DE 19977
(302) 223-1520

F * \$ 2 6 7 6 8 0 * ODW	TEST Request: □ Routine □ Complaint □ Confirmation* X Special □ MRT □ Field Blank □ Split □ Duplicate □ Replacement*
Collection Time: (military) 1357	*Confirmation & *Replacement Requires Original Sample #
Collection Date:5/19/10	
PWSID #PRIVATE Supply Nam	ne: Ex. 6 Personal Privacy (PP)
Facility Name: Ex. 6 Personal Privacy (PP) (For example: Treatment Plant, Sampling Station, or Distribution System	Facility # Of
Sample Point Outside tap	Sample Point # OT
AST/Operator # Collector's Nam	(For example: DEP001, MRT001, SP042, or WT001)
601 / DE-331_ Ex. 4 CBI	741 Ex. 6 Personal Privacy (PP) 741-8631
Free Chlorinemg/L Total Cl	hlorinemg/L Not Chlorinated
pH Field Test Monitoring Schedu	ıle: 🗆 Mthly. 🗆 Qtr. 🗆 Ann. 🗆 Tri. 🗆 Oth
Analyte Group: Please check box of ind	lividual test required.
ROUTINE: (mg/L)	L CHEM: (mg/L) Usine Chem. plus: Alk, Hardness, TDS]
☐ TRACE: (mg/L) ☐ Mn [As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Sb, Tl]	☐ Cu ☐ Anions ☐ CN [NO ₃ , NO ₂ , F, CI]
□ VÕCs □ TTHM □ HAA5 □ Pes EPA 524.2 EPA 552.2 EPA 5	
□ 531 □ 504 □ Gross Alpha	□ Radium 226/228 □ Other:

Division of Public Health Office of Drinking Water Blue Hen Corporate Center 655 Bay Road, Suite 203

Dover, DE 19901 Ph: (302) 741-8630, FAX: (302) 741-8631 or (302) 661-7228



Delaware Health and Social Services Division of Public Health Laboratory 118 of 169

30 Sunnyside Road Smyrna, Delaware 19977 Phone: (302) 223-1520 Fax: (302) 653-2877

Office of Drinking Water Agency:

S267680 (383029) Label ID (Sample #):

Date Collected:

05/19/2010 1:57 pn

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

Collected By:

Ex. 4 CBI

PWSID:

PRIVATE

Collector ID:

DE331

Sample Point:

OT

Date Received: Sampled pH:

05/20/2010 12:55 pi

Sample Location:

Ex. 6 Personal Privacy (PP)

Free CI:

Sample Type: Chlorination:

Not Chlorinated or

Total CI:

Tested

	<mark>kan sejaga mige sa galamin muungsa muun se</mark> mma ja maga kan muun ja ja ja ja ja ja ja ja ja ja ja ja ja	halika yazirkan kepada aportika ariya errena apipalisa berrikalip kita jihatifanya kepada daportipa serakkil	فالمعادية والمستعيد والمستعد والمستعد والمستعدد والمستعد والمستعد
Test	Result	MCL	Date Released
EPA200.8	an anti-alian gangan inti anti natan mana mana mana anti mana anti mana mana mana mana mana mana mana man	ke usang ng gayadah nasan sahang nasan dang dalam na ng pinja dalam na ng galifik nasa na paglifik nasa na pagk	erican Productivi contrato e establica de la materia e especial de como contrato de la como constante de const Contrato de contrato de co
Nickel	0.0059 mg/L		05/21/2010
Beryllium	0.0007 mg/L	<=0.004	05/21/2010
Arsenic	<0.0005 mg/L	<=0.01	05/21/2010
Mercury	<0.0005 mg/L	<=0.002	05/21/2010
Lead	0.0032 mg/L	<=0.015	05/21/2010
Chromium	0.0031 mg/L	<=0.1	05/21/2010
Cadmium	0.0016 mg/L	<=0.005	05/21/2010
Antimony	<0.0005 mg/L	<=0.006	05/21/2010
Selenium	<0.010 mg/L	<=0.05	05/21/2010
Manganese	0.1469 mg/L	<=0.05	05/21/2010
Thallium	<0.0005 mg/L	<=0.002	05/21/2010
Uranium	<0.0005 mg/L	<=0.03	05/21/2010
Barium	0.2417 mg/L	<=2.0000	05/21/2010
	-		





Delaware Health and Social Service Bage 119 of 169

Date Collected:

Collected By:

Collector ID:

Sampled pH:

Free CI:

Total CI:

Date Received:

05/19/2010 1:57 pn Ex. 6 Personal Privacy (PP)

05/20/2010 12:55 pt

DE331

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): 3267680 (383029)

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE

Sample Point: Sample Location: OT

Ex. 6 Personal Privacy (PP)

Sample Type:

SP

Chlorination:

Not Chlorinated or

Tested

Specimen Note:

Sample previously released. Sample report ammended to include zinc values as requested by

ODW.

Test	Result	MCL	Date Released
EPA200.8	in the state of th	and the second of the second o	e anguerrata religiónscensos anos escribiros pare escrib
Barium	0.2417 mg/L	<=2.0000	05/28/2010
Previously Reported As:	0.2417 mg/L		
Zinc	6.9500 mg/L	<=5	05/28/2010
Previously Reported As:	5.8916 mg/L		
Thallium	<0.0005 mg/L	<=0.002	05/28/2010
Manganese	0.1469 mg/L	<=0.05 °	05/28/2010
Previously Reported As:	0.1469 mg/L		
Uranium	<0.0005 mg/L	<=0.03	05/28/2010
Selenium	<0.010 mg/L	<=0.05	05/28/2010
Antimony	<0.0005 mg/L	<=0.006	05/28/2010
Lead	0.0032 mg/L	<=0.015	05/28/2010
Mercury	<0.0005 mg/L	<=0.002	05/28/2010
Chromium	0.0031 mg/L	<=0.1	05/28/2010
Cadmium	0.0016 mg/L	<=0.005	05/28/2010
Beryllium	0.0007 mg/L	<=0.004	05/28/2010
Arsenic	<0.0005 mg/L	<=0.01	05/28/2010
Nickel	0.0059 mg/L		05/28/2010



Delaware Public Health Laboratory 30 Sunnyside Road Smyrna, DE 19977 (302) 223-1520

Bar Cd F * \$ 2 6 7 6 7 9 * C N	TEST Request: Routine Complaint Confirmation* X Special MRT Field Blank Split Duplicate Replacement*
Collection Time: (military) 1355	*Confirmation & *Replacement Requires Original Sample #
Collection Date:5/19/10	^
PWSID #PRIVATESunnly Mam	e: Ex. 6 Personal Privacy (PP)
Facility Name: Ex. 6 Personal Privacy (PP)	Facility # OUTSICHE TAP (For example: TP001, SS001, DS001, or WL001/DNREC ID#)
Sample Point <u>ot</u>	Sample Point # OT (For example: DEP001, MRT001, SP042, or WT001)
AST/Operator # Collector's Name 601 / DE-331_ Ex. 4 CBI	
Free Chlorinemg/L Total Ch	nlorine mg/L Not Chlorinated
pH Field Test Monitoring Schedu	le: Mthly. Qtr. Ann. Tri. Oth
Analyte Group: Please check box of ind	ividual test required.
ROUTINE: (mg/L)	L CHEM: (mg/L) Sulfate utine Chem. plus: Alk, Hardness, TDS]
☐ TRACE: (mg/L) ☐ Mn [As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Sb, Tl]	☐ Cu ☐ Anions ☐ CN [NO ₃ , NO ₂ , F, Cl]
□ VOCs □ TTHM □ HAA5 □ Pes EPA 524.2 EPA 552.2 EPA 56	ticides
□ 531 □ 504 □ Gross Alpha □	☐ Radium 226/228 ☐ Other:
Field Blank ID Number:	

Division of Public Health Office of Drinking Water
Blue Hen Corporate Center
655 Bay Road, Suite 203
Dover, DE 19901



Delaware Health and Social Services Division of Public Health Laboratory 109

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): S267679 (383030)

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE

Sample Point: Sample Location: OT Ex. 6 Personal Privacy (PP)

Sample Type:

SP

Chlorination: Not Chlorinated or

Tested

Date Collected:

05/19/2010 1:55 pn

Collected By:

Ex. 4 CBI

Collector ID:

DE331

Date Received: 05/20/2010 12:55 pt

Sampled pH:

Free CI:

Total CI:

Test	Result	MCL	Date Released
SM4500CN-F	e digitalisan yang salaman yang penggabahan digitalisan digitalisan digitalisan digitalisan digitalisan digital	er in water stand desired a desired and construction of the constr	e y, course e en estados en come en entre en entre en entre en entre en entre en entre en entre en entre en en
Cyanide	<0.05 mg/L	<0.2	05/21/2010



Field Blank ID Number:

Delaware Pablic Pradition & boratory 30 Sunnyside Road Smyrna, DE 19977

Bar (F * \$ 2 7 0 1 8 6 *	TEST Request: Routine Complaint Confirmation* X Special MRT Field Blank Split Duplicate Replacement*	
*Confirmation & *Replacement Requires Original Sample #		
PWSID #PRIVATE Supply Facility Name: Ex. 6 Personal Priva (For example: Treatment Plant, Sampling Station, or Distribution)	cy (PP) Facility # outside tap	
Sample Point		
Free Chlorinemg/L		
Analyte Group: Please check box	of individual test required.	
□ ROUTINE: (mg/L) □ FULL CHEM: (mg/L) □ Sulfate [Routine Chem. plus: Alk, Hardness, TDS]		
☐ TRACE: (mg/L) [As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Sb, T	☐ Mn ☐ Cu ☐ Anions ☐ CN ☐ [NO ₃ , NO ₂ , F, CI]	
VOCs □ TTHM □ HAA5 □ PA 552.2	Pesticides	
□ 531 □ 504 □ G ross Alp	oha 🗆 Radium 226/228 🗆 Other:	

Division of Public Health Office of Drinking Water Blue Hen Corporate Center 655 Bay Road, Suite 203 Dover, DE 19901



Delaware Health and Social Services Page 123 of 169

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): S270186 (383017)

Date Col.ècted:

05/19/2010 1:59 pn

Property Owner/Facility:

Ex. 6 Personal Privacy (PP)

Collected By:

Ex. 4 CBI

PWSID:

PRIVATE

Collector ID:

601

Sample Point:

OT

Date Received: Sampled pH:

05/20/2010 12:55 pi

Sample Location:

Ex. 6 Personal Privacy (PP)

Free CI:

Sample Type: Chlorination:

Not Chlorinated or

Tested

Total CI:

Test	Result	MCL	Date Released
EPA524.2	and the property of the second second second second second second second second second second second second se	a wayatiya aa daadaanaa ka daganadaada da miiya, ee caa ee	adais yn definiad e ar deid addidaina an telebra tai debre ei e air sadt.
Dichlorodifluormethane	<0.5 μg/L	; -	05/24/2010
Chloromethane	<0.5 μg/L		05/24/2010
Bromomethane	<0.5 μg/L		05/24/2010
Chloroethane	<0.5 µg/L		05/24/2010
Trichlorfluoromethane	<0.5 μg/L		05/24/2010
Methyl tert-butyl ether (MTBE)	<0.5 μg/L		05/24/2010
1,1-dichloroethane	<0.5 μg/L		05/24/2010
2,2-dichloropropane	<0.5 μg/L		05/24/2010
1,1-dichloropropene	<0.5 μg/L		05/24/2010
Bromodichloromethane	<0.5 μg/L		05/24/2010
Dibromomethane	<0.5 μg/L		05/24/2010
Cis-1,3-dichlorpropene	<0.5 μg/L		05/24/2010
Chloroform	<0.5 μg/L		05/24/2010
Bromochloromethane	<0.5 μg/L		05/24/2010
Trans-1,3-dichloropropene	<0.5 μg/L		05/24/2010
1,3-dichloropropane	<0.5 μg/L		05/24/2010
Chlorodibromomethane	<0.5 μg/L		05/24/2010
Ethylene dibromide (EDB)	<0.5 μg/L		05/24/2010
1,1,1,2-tetrachloroethane	<0.5 μg/L		05/24/2010
Bromoform	<0.5 µg/L		05/24/2010
Isopropylbenzene	<0.5 µg/L		05/24/2010
1,1,2,2-tetrachlorethane	<0.5 μg/L		05/24/2010
1,2,3-trichloropropane	<0.5 µg/L	· · · · · · · · · · · · · · · · · · ·	
Bromobenzene	<0.5 μg/L		05/24/2010
N-propylbenzene	<0.5 μg/L		05/24/2010





Delaware Health and Social Services 124 of 169

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): S270186 (383017)

Personal Privacy (PP)

Property Owner/Facility Ex. 6 Personal Privacy (PP)

PWSID: PRIVATE

Sample Point: OT

Sample Location: Ex. 6 Personal Privacy (PP)

Sample Type: SP

Not Chlorinated or Tested Date Collected:

05/19/2010 1:59 pn Ex. 4 CBI

Collected By:

LA. 4

Collector ID: 601

Date Received:

Parabrade 05

05/20/2010 12:55 pt

Sampled pH:

Free CI: Total CI:

Specimen Note:

Chlorination:

Test	Result	MCL	Date Released
O-chlorotoluene	<0.5 µg/L	maly maggin and a trib at that have a come constructed a second	05/24/2010
1,3,5-trimethylbenzene	<0.5 µg/L		05/24/2010
P-chlorotoluene	<0.5 µg/L		05/24/2010
Tert-butylbenzene	<0.5 µg/L		05/24/2010
1,2,4-trimethylbenzene	<0.5 μg/L		05/24/2010
Sec-butylbenzene	<0.5 µg/L		05/24/2010
P-isopropyltoluene	<0.5 μg/L		05/24/2010
M-dichlorobenzene	<0.5 µg/L		05/24/2010
N-butylbenzene	<0.5 μg/L		05/24/2010
Dibromochloropropane	<0.5 µg/L		05/24/2010
Hexachlorobutadiene	<0.5 µg/L		05/24/2010
Naphthalene	<0.5 μg/L	e de la companya de la companya de la companya de la companya de la companya de la companya de la companya de	05/24/2010
1,2,3-trichlorobenzene	<0.5 µg/L		05/24/2010
Vinyl Chloride	<0.5 µg/L	<2.000	05/24/2010
Trans-1,2-dichloroethylene	<0.5 µg/L	<100.000	05/24/2010
Cis-1,2-dichloroethylene	<0.5 µg/L	<70.000	05/24/2010
1,1-dichloroethylene	<0.5 µg/L	<7.000	05/24/2010
Dichloromethane	<0.5 µg/L	<5.000	05/24/2010
Benzene	<0.5 µg/L	<5.000	05/24/2010
1,2-dichloroethane	<0.5 µg/L	<5.000	05/24/2010
Trichloroethylene	<0.5 µg/L	<5.000	05/24/2010
1,2-dichloropropane	<0.5 µg/L	<5.000	05/24/2010
1,1,1-trichloroethane	<0.5 μg/ L	<200.000	05/24/2010
Carbon tetrachloride	<0.5 pg/L	<5.000	05/24/2010
P-dichlorobenzene	<0.5 µg/L	<75.000	05/24/2010 ,
Styrene	<0.5 μg/L	<100.000	05/24/2010



Print Date: 05/25/2010



Delaware Health and Social Services page 125 of 169

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1620 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label.iD_(Sample.#):_ S270186 (383017)

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE

Ex. 6 Personal Privacy (PP)

Sample Point:

Sample Location:

Sample Type:

Chlorination:

OT

Not Chlorinated or Tested

Date Collected:

05/19/2010 1:59 pn

Collected By:

Ex. 4 CBI

Collector ID:

601

Date Received:

05/20/2010 12:55 pi

Sampled pH:

Free CI: Total CI:

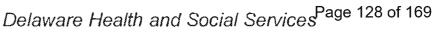
Test	Reșult	MCL	Date Released
Xylenes	<0.5 µg/L	<=10,000.000	05/24/2010
Ethylbenzene	<0.5 µg/L	<700.000	05/24/2010
Tetrachloroethylene	<0.5 µg/L	<5.000	05/24/2010
Chlorobenzene	<0.5 µg/L	<100.000	05/24/2010
Toluene	<0.5 µg/L	<1,000.000	05/24/2010
1,1,2-trichtoroethane	<0.5 µg/L	<5.000	05/24/2010
1,2,4-trichlorobenzene	<0.5 μg/L	<80.000	05/24/2010
O-dichlorobenzene	<0.5 μg/L	<600.000	05/24/2010



Page 127 of 169
Delaware Public Health Laboratory
30 Sunnyside Road
Smyrna, DE 19977
(302) 223-1520

F * \$ 2 8 3 7 7 5 * C469876	TEST Request: Routine Complaint Confirmation* X Special MRT Field Blank Split Duplicate Replacement*
Collection Date:4/28/2011	*Confirmation & *Replacement Requires Original Sample #
Collection Time: (military) 11:54 PWSID #_PRIVATE Supply No.	
Facility Name: Ex. 6 Personal Pi	rivacy (PP) Facility # (For example: TP001, SS001, DS001, or WL001/DNREC ID#)
Sample Point	Sample Point #
AST/Operator # Collector'sDE-331Ex. 4 C	Name Collector's Phone Collector's Fax #
Free ChlorineXmg/L T	otal Chlorine X mg/L X Not Chlorinated
pH Field Test Monitoring S	Schedule: ☐ Mthly. ☐ Qtr. ☐ Ann. ☐ Tri. ☐ Oth
Analyte Group: Please check box	of individual test required.
□ ROUTINE: (mg/L) [NO ₃ , NO ₂ , Fe, Na, pH, F, Cl,]	☐ FULL CHEM: (mg/L) ☐ Sulfate [Routine Chem. plus: Alk, Hardness, TDS]
X TRACE: (mg/L) [As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Sb,	☐ Mn ☐ Cu ☐ Anions CN [NO ₃ , NO ₂ , F, Cl]
VOCs TTHM HAA5 EPA 524.2 EPA 552.2	Pesticides Herbicides 508 525 EPA 505 EPA 515.1
□ 531 □ 504 □ Gross Al	lpha 🗆 Radium 226/228 🗆 Other:
Field Blank ID Number:	

Division of Public Health Office of Drinking Water
43 S. DuPont Highway
Dover, DE 19901



Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Office of Drinking Water Agency:

Label ID (Sample #): S283775 (469076)

Property Owner/Facility: NOT HOME

PRIVATE PWSID:

W.T. Sample Point:

Ex. 6 Personal Privacy (PP) Sample Location:

Sample Type:

Chlorination: Not Chlorinated or

Tested

ZINC ALSO PLEASE Notes / Comments:

Date Collected:

04/28/2011 11:56 ar

Collected By: Ex. 4 CBI

Collector ID: 331

Date Received:

04/29/2011 12:20 pi

Sampled pH: Free CI:

Total CI:

Specimen Note:

Test	Result	MCL	Date Released
EPA200.8	rakilania, delikaaineete liisti on 11. oo 12. oo 12. oo 12. oo 14	raine en trait de instruce en en en en en en en en en en en en en	i (1) diliteras das millo des e l'impact di estrubbadandi (1) de l'includence (1).
Beryllium	<0.0005 mg/L	<=0.004	05/05/2011
Chromium	0.0040 mg/L	<=0.1	05/05/2011
Manganese	0.0376 mg/L	<=0.05	05/05/2011
Nickel	0.0017 mg/L		05/05/2011
Zinc	<0.010 mg/L	<=5	05/05/2011
Arsenic	<0.0005 mg/L	<=0.01	05/05/2011
Selenium	<0.010 mg/L	<=0.05	05/05/2011
Cadmium	<0.0005 mg/L	<=0.005	05/05/2011
Antimony	<0.0005 mg/L	<=0.006	05/05/2011
Barium	0.0832 mg/L	<=2.0000	05/05/2011
Mercury	<0.0005 mg/L	<=0.002	05/05/2011
Thallium	<0.0005 mg/L	<=0.002	05/05/2011
Lead	<0.0005 mg/L	<=0.015	05/05/2011
Uranium	<0.0005 mg/L	<=0.03	05/05/2011

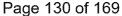


Print Date: 05/05/2011

Page 129 of 169
Delaware Public Health Laboratory
30 Sunnyside Road
Smyrna, DE 19977
(302) 223-1520

F * \$ 2 8 3 7 7 3 * 4 4 4 9 0 7 7	TEST Request: Routine Complaint Confirmation* Special MRT Field Blank Split Duplicate Replacement*
Collection Date:4/28/2011	*Confirmation & *Replacement Requires Original Sample #
Collection Time: (military) 11:44	
PWSID #_PRIVATE Supply Name:	Ex. 6 Personal Privacy (PP)
Facility Name: Ex. 6 Pers	sonal Privacy (PP) ECID#)
Sample Point	
AST/Operator # Collector's Nar DE-331 Ex. 4 CBI	(For example: DEP001, MRT001, SP042, or WT001) ne Collector's Phone Collector's Fax # 382 Ex. 6 Personal Privacy (PP)741~8631
i	ChlorineXmg/L X Not Chlorinated
pH Field Test Monitoring Sched	dule: ☐ Mthly. ☐ Qtr. ☐ Ann. ☐ Tri. ☐ Oth
Analyte Group: Please check box of in	idividual test required.
	JLL CHEM: (mg/L) Sulfate outine Chem. plus: Alk, Hardness, TDS]
X TRACE: (mg/L)	n 🗆 Cu 🗀 Anions CN [NO ₃ , NO ₂ , F, CI]
	esticides Herbicides 508 525
☐ 531 ☐ 504 ☐ Gross Alpha	☐ Radium 226/228 ☐ Other:
Field Blank ID Number:	

Division of Public Health Office of Drinking Water 43 S. DuPont Highway Dover, DE 19901





Delaware Health and Social Service's

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977 Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): S283773 (469077)

Property Owner/Facility: Ex. 6 Personal Privacy (PP) PWSID: **PRIVATE**

Sample Point: K.S.

Ex. 6 Personal Privacy (PP)

Sample Location:

Sample Type:

Chlorination: Not Chlorinated or

Tested

Notes / Comments: ZINC ALSO PLEASE Date Collected:

04/28/2011 11:44 ar

Ex. 4 CBI

331

Collected By: Collector ID:

Date Received:

04/29/2011 12:20 pr

Sampled pH:

Free CI: Total CI:

Test	Result	MCL	Date Released
EPA200.8	therefore west of the Astronomical and amendment to the information and interest and in the Astronomical Astr	negio (negio) (negio de como de contrar en especial de contrar en en el 1965 en 1965 en 1965 en 1965 en 1965 e	a mangan kan akipan mankan manakan salah dian mengan perbanah salah di kemendan diban di mengan beranda di mendadi
^r Beryllium	<0.0005 mg/L	<=0.004	05/05/2011
¹ Chromium	0.0031 mg/L	<=0.1	05/05/2011
Manganese	0.0136 mg/L	<=0.05	05/05/2011
· Nickel	0.0017 mg/L		05/05/2011
Zinc	<0.010 mg/L	<= 5	05/05/2011
√ Arsenic	<0.0005 mg/L	<=0.01	05/05/2011
⁷ Selenium	<0.010 mg/L	<=0.05	05/05/2011
^r Cadmium	<0.0005 mg/L	<=0.005	05/05/2011
\ Antimony	<0.0005 mg/L	<=0.006	05/05/2011
· Barium	0.0298 mg/L	<=2.0000	05/05/2011
· Mercury	<0.0005 mg/L	<=0.002	05/05/2011
- Thallium	<0.0005 mg/L	<=0.002	05/05/2011
√ Lead	<0.0005 mg/L	<=0.015	05/05/2011
Uranium	<0.0005 mg/L	<=0.03	05/05/2011



Delaware Public Health Laboratory 30 Sunnyside Road Smyrna, DE 19977 (302) 223-1520

* s z 8 3 7 7 1 * * V 449078	TEST Request: □ Routine □ Complaint □ Confirmation* X Special □ MRT □ Field Blank □ Split □ Duplicate □ Replacement*
Collection Date:4/28/2011	
Collection Time: (military) 1237	*
PWSID #_PRIVATE Supply Nam	e: Ex. 6 Personal Privacy (PP)
Facility Name: Ex. 6 Per	rsonal Privacy (PP)
Sample Point	Sample Point #
AST/Operator # Collector's N	ame Collector's Phone Collector's Fax #
DE-331 Ex. 4 C	BI382- Ex. 6 Personal Privacy (PP)741-8631
Free ChlorineXmg/L Tota	al ChlorineXmg/L X Not Chlorinated
pH Field Test Monitoring Sch	nedule: Mthly. Qtr. Ann. Tri. Oth
Analyte Group: Please check box of	individual test required.
☐ ROUTINE: (mg/L) ☐ [NO ₃ , NO ₂ , Fe, Na, pH, F, Cl,]	FULL CHEM: (mg/L) [Routine Chem. plus: Alk, Hardness, TDS]
X TRACE: (mg/L) [As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Sb, Ti]	Mn 🗆 Cu 🗆 Anions CN [NO3, NO2, F, CI]
	Pesticides Herbicides 508 525 EPA 505 EPA 515.1
□ 531 □ 504 □ Gross Alph	na 🗆 Radium 226/228 🗆 Other:
Field Blank ID Number:	

Division of Public Health Office of Drinking Water
43 S. DuPont Highway
Dover, DE 19901



Delaware Health and Social Service Sage 132 of 169

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

S283771 (469078) Label ID (Sample #):

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE

Sample Point: Sample Location:

O.T. Ex. 6 Personal Privacy (PP)

Sample Type:

SP

Chlorination:

Not Chlorinated or

Tested

Notes / Comments: ZINC ALSO PLEASE Collected By:

04/28/2011 11:37 au

04/29/2011 12:20 pt

Date Collected:

Ex. 4 CBI

Collector ID:

331

Date Received:

Sampled pH:

Free CI: Total CI:

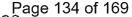
Test	Result	MCL	Date Released
EPA200.8		transaction and the control of the c	
Beryllium	<0.0005 mg/L	<=0.004	05/05/2011
Chromium	0.0033 mg/L	<=0.1	05/05/2011
Manganese	0.0011 mg/L	<=0.05	05/05/2011
Nickel	<0.0005 mg/L		05/05/2011
Zinc	<0.010 mg/L	<=5	05/05/2011
Arsenic	<0.0005 mg/L	<=0.01	05/05/2011
Selenium	<0.010 mg/L	<=0.05	05/05/2011
Cadmium	<0.0005 mg/L	<=0.005	05/05/2011
Antimony	<0.0005 mg/L	<=0.006	05/05/2011
Barium	<0.010 mg/L	<=2.0000	05/05/2011
Mercury	<0.0005 mg/L	<=0.002	05/05/2011
Thallium	<0.0005 mg/L	<=0.002	05/05/2011
Lead	<0.0005 mg/L	<=0.015	05/05/2011
Uranium	<0.0005 mg/L	<=0.03	05/05/2011



Page 133 of 169
Delaware Public Health Laboratory
30 Sunnyside Road
Smyrna, DE 19977
(302) 223-1520

	TEST Request: Routine Complaint Confirmation*
* \$ 2 8 3 7 6 9 * ODW	X Special ☐ MRT ☐ Field Blank ☐ Split ☐ Duplicate ☐ Replacement*
469079	*Confirmation & *Replacement
Collection Date:4/28/2011	Requires Original Sample #
Collection Time: (military) 11:29	
PWSID #_PRIVATE Supply Name:	Ex. 6 Personal Privacy (PP)
Facility Name: Ex. 6 Personal Privacy (PP)) Facility #
Sample Point	Sample Point # O . (For example: DEP001, MRT001, SP042, or WT001)
AST/Operator # Collector's Name DE-331 Ex. 4 CBI	
	nlorineXmg/L X Not Chlorinated
pH Field Test Monitoring Schedu	lle; ☐ Mthly. ☐ Qtr. ☐ Ann. ☐ Tri. ☐ Oth
Analyte Group: Please check box of indi	ividual test required.
☐ ROUTINE: (mg/L) ☐ FUL [NO ₃ , NO ₂ , Fe, Na, pH, F, Cl,] ☐ [Rou	L CHEM: (mg/L) Sulfate utine Chem. plus: Alk, Hardness, TDS]
X TRACE: (mg/L) ☐ Mn [As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Sb, Tl]	☐ Cu ☐ Anions CN [NO₃, NO₂, F, CI]
VOCs TTHM HAA5 Pes	ticides
☐ 531 ☐ 504 ☐ Gross Alpha	☐ Radium 226/228 ☐ Other:
Field Blank ID Number:	

Division of Public Health Office of Drinking Water 43 S. DuPont Highway Dover, DE 19901





Delaware Health and Social Services Page 134 of 169

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

S283769 (469079) Label ID (Sample #):

Property Owner/Facility Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE

Ex. 6 Personal Privacy (PP)

Sample Point:

O.T.

Sample Location:

SP Sample Type:

Chlorination:

Not Chlorinated or

Tested

Notes / Comments: ZINC ALSO PLEASE **Date Collected:**

04/28/2011 11:29 ar

Collected By:

Ex. 4 CBI 331

Collector ID:

Date Received:

04/29/2011 12:20 pi

Sampled pH:

Free CI:

Total CI:

Test	Result	MCL	Date Released
EPA200.8			
Beryllium	0.0005 mg/L	<=0.004	05/05/2011
Chromium	0.0035 mg/L	<=0.1	05/05/2011
Manganese	0.1653 mg/L	<=0.05	05/05/2011
Nickel	0.0051 mg/L		05/05/2011
Zinc	0.0464 mg/L	<=5	05/05/2011
Arsenic	<0.0005 mg/L	<=0.01	05/05/2011
Selenium	<0.010 mg/L	<=0.05	05/05/2011
Cadmium	<0.0005 mg/L	<=0.005	05/05/2011
Antimony	<0.0005 mg/L	<=0.006	05/05/2011
Barium	0.2314 mg/L	<=2.0000	05/05/2011
Mercury	<0.0005 mg/L	<=0.002	05/05/2011
Thallium	<0.0005 mg/L	<=0.002	05/05/2011
Lead	0.0021 mg/L	<=0.015	05/05/2011
Uranium	<0.0005 mg/L	<=0.03	05/05/2011



Delaware Public Health Laboratory 30 Sunnyside Road Smyrna, DE 19977 (302) 223-1520

F * \$ 2 8 3 8 1 4 * 469057	TEST Request: Routine Complaint Confirmation* X Special MRT Field Blank Split Duplicate Replacement*
Collection Date:4/28/2011	*Confirmation & *Replacement Requires Original Sample #
Collection Time: (military) 10:14	
PWSID #_PRIVATE Supply Name:	Ex. 6 Personal Privacy (PP)
Facility Name (For example: Treatment Ex. 6 Personal Privacy (P	(For example: TP001, SS001, DS001, or WL001/DNREC ID#)
Sample Point	Sample Point # 🔘 📗
AST/Operator # Collector's Nam	(For example: DEP001, MRT001, SP042, or WT001) Collector's Phone Collector's Fax #
DE-331 Ex. 4 CBI	382= Ex. 6 Personal Privacy (PP)741-8631
Free Chlorine X mg/L Total C	ChlorineXmg/L X Not Chlorinated
pH Field Test Monitoring Schedu	ule: Mthly. Qtr. Ann. Tri. Oth
Analyte Group: Please check box of inc	dividual test required.
ROUTINE: (mg/L) FUL [NO ₃ , NO ₂ , Fe, Na, pH, F, Cl,] [Ro	LL CHEM: (mg/L) ☐ Sulfate outine Chem. plus: Alk, Hardness, TDS]
X TRACE: (mg/L)	☐ Cu ☐ Anions CN [NO₃, NO₂, F, CI]
VOCs TTHM HAA5 Pes	sticides Herbicides 508 525
☐ 531 ☐ 504 ☐ Gross Alpha	☐ Radium 226/228 ☐ Other:
Field Blank ID Number:	

Division of Public Health Office of Drinking Water 43 S. DuPont Highway Dover, DE 19901



Delaware Health and Social Services

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency:

Office of Drinking Water

Label ID (Sample #):

S283814 (469064)

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE

Sample Point:

Sample Location:

Ex. 6 Personal Privacy (PP)

Sample Type:

SP

Chlorination:

Not Chlorinated or

Tested

Notes / Comments:

ZINC ALSO PLEASE

Date Collected:

04/28/2011 10:14 ar

Collected By:

Ex. 4 CBI 331

Collector ID:

Sampled pH:

Date Received:

04/29/2011 12:20 pr

Free CI:

Total CI:

Test	Result	MCL	Date Released
EPA200.8	and the state of the state of the state of the state of the state of the state of the state of the state of the		
Beryllium	<0.0005 mg/L	<=0.004	05/09/2011
Chromium	0.0031 mg/L	<=0.1	05/09/2011
Manganese	0.0057 mg/L	<=0.05	05/09/2011
Nickel	0.0006 mg/L		05/09/2011
Zinc	<0.010 mg/L	<=5	05/09/2011
Arsenic	<0.0005 mg/L	<=0.01	05/09/2011
Selenium	<0.010 mg/L	<=0.05	05/09/2011
Cadmium	<0.0005 mg/L	<=0.005	05/09/2011
Antimony	<0.0005 mg/L	<=0.006	05/09/2011
Barium	0.0642 mg/L	<=2.0000	05/09/2011
Mercury	<0.0005 mg/L	<=0.002	05/09/2011
Thallium	<0.0005 mg/L	<=0.002	05/09/2011
Lead	0.0038 mg/L	<=0.015	05/09/2011
Uranium	<0.0005 mg/L	<=0.03	05/09/2011



Delaware Public Health Laboratory 30 Sunnyside Road Smyrna, DE 19977 (302) 223-1520

opw 469064	TEST Request: Routine Complaint Confirmation* X Special MRT Field Blank Split Duplicate Replacement*
Collection Date:4/28/2011	*Confirmation & *Replacement Requires Original Sample #
Collection Time: (military) 1107	
PWSID #_PRIVATE Supply Name	Ex. 6 Personal Privacy (PP)
Facility Name: Ex. 6 Pers	sonal Privacy (PP)
Sample Point	Sample Point # Sample Point
AST/Operator # Collector's Na DE-331 Ex. 4 CBI	me Collector's Phone Collector's Fax #
Free Chlorine X mg/L Total	ChlorineXmg/L X Not Chlorinated
pH Field Test Monitoring Sche	edule: 🗆 Mthly. 🗈 Qtr. 🗆 Ann. 🗀 Tri. 🗀 Oth
Analyte Group: Please check box of i	individual test required.
4 400° W	ULL CHEM: (mg/L) ☐ Sulfate Routine Chem. plus: Alk, Hardness, TDS]
X TRACE: (mg/L)	In ☐ Cu ☐ Anions CN [NO ₃ , NO ₂ , F, CI]
	Pesticides
☐ 531 ☐ 504 ☐ Gross Alpha	a □ Radium 226/228 □ Other:
Field Blank ID Number:	

Division of Public Health Office of Drinking Water 43 S. DuPont Highway Dover, DE 19901



Delaware Health and Social Services

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Office of Drinking Water Agency: Label ID (Sample #):

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

PWSID: **PRIVATE**

OT Sample Point:

Sample Location:

Sample Type:

Notes / Comments:

S283811 (469066)

Ex. 6 Personal Privacy (PP)

SP

Not Chlorinated or Tested

ZING ALSO PLEASE

Date Collected:

04/28/2011 11:07 at

Collected By: Ex. 4 CBI

331 Collector ID:

Date Received: 04/29/2011 12:20 pr

Sampled pH:

Free CI:

Total CI:

Specimen Note:

Chlorination:

Test	Result	MCL	Date Released
EPA200.8			
Beryllium	0.0007 mg/L	<=0.004	05/09/2011
Chromium	0.0242 mg/L	<=0.1	05/09/2011
Manganese	0.0930 mg/L	<=0.05	05/09/2011
Nickel	0.0765 mg/L		05/09/2011
Zinc	0.01 7 2 mg/L	<=5	05/09/2011
Arsenic	<0.0005 mg/L	<=0.01	05/09/2011
Selenium	<0.010 mg/L	<=0.05	05/09/2011
Cadmium	<0.0005 mg/L	<=0.005	05/09/2011
Antimony	<0.0005 mg/L	<=0.006	05/09/2011
Barium	0.0767 mg/L	<=2.0000	05/09/2011
Mercury	0.0010 mg/L	<=0.002	05/09/2011
Thallium	<0.0005 mg/L	<=0.002	05/09/2011
Lead	0.0019 mg/L	<=0.015	05/09/2011
Uranium	<0.0005 mg/L	<=0.03	05/09/2011

Print Date: 05/09/2011

Delaware Public Health Laboratory 30 Sunnyside Road Smyrna, DE 19977 (302) 223-1520

ODW 4 69067	TEST Request: □ Routine □ Complaint □ Confirmation* X Special □ MRT □ Field Blank □ Split □ Duplicate □ Replacement*
Collection Date:4/28/2011	*Confirmation & *Replacement Requires Original Sample #
Collection Time: (military) 10.56	
PWSID #_PRIVATE Supply Nam	e: _ Ex. 6 Personal Privacy (PP)
Facility Name: Ex. 6 F	Personal Privacy (PP)
Sample Point	Sample Point # OT (For example: DEP001, MRT001, SP042, or WT001)
AST/Operator # Collector's N	
DE-331 Ex. 4 CBI	382- Ex. 6 Personal Privacy (PP)
	al ChlorineXmg/L X Not Chlorinated medule: Mthly. Qtr. Ann. Tri. Oth
Analyte Group: Please check box of	
☐ ROUTINE: (mg/L)	·
X TRACE: (mg/L) [1] [As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Sb, Tl]	Mn 🗆 Cu 🗀 Anions CN [NO3, NO2, F, Cl]
□ VOCs □ TTHM □ HAA5 □ EPA 524.2 EPA 552.2	Pesticides
☐ 531 ☐ 504 ☐ Gross Alph	na 🗆 Radium 226/228 🗆 Other:
Field Blank ID Number:	

Division of Public Health Office of Drinking Water 43 S. DuPont Highway Dover, DE 19901



Delaware Health and Social Services

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency:

Office of Drinking Water

Label ID (Sample #):

S283809 (469067)

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE

Sample Point:

OT

Sample Location:

Ex. 6 Personal Privacy (PP)

Sample Type:

SP

Chlorination:

Not Chlorinated or

Tested

Notes / Comments:

ZINC ALSO PLEASE

Date Collected:

04/28/2011 10:56 au

Ex. 4 CBI

05/09/2011

05/09/2011

05/09/2011

05/09/2011

05/09/2011

05/09/2011

05/09/2011

Collected By:

Collector ID:

331 Date Received:

04/29/2011 12:20 pr

Sampled pH:

Free CI: **Total CI:**

<=0.005

<=0.006

<=2.0000

<=0.002

<=0.002

<=0.015

<=0.03

Specimen Note:

Cadmium

Antimony Barium

Mercury

Thallium

Uranium

Lead

Test	Result	MCL	Date Released
EPA200.8		ering is water a maje hand, but a set any water a sout or it strends the first a maje, which they is a set of the maje and a	and the second second second second second second second second second second second second second second second
Beryllium	<0.0005 mg/L	<=0.004	05/09/2011
Chromium	0.0029 mg/L	<=0.1	05/09/2011
Manganese	0.2179 mg/L	<=0.05	05/09/2011
Nickel	0.0020 mg/L		05/09/2011
Zinc	0.0249 mg/L	<=5	05/09/2011
Arsenic	<0.0005 mg/L	<=0.01	05/09/2011
Selenium	<0.010 mg/L	<=0.05	05/09/2011

<0.0005 mg/L

<0.0005 mg/L

<0.0005 mg/L

<0.0005 mg/L

<0.0005 mg/L

<0.0005 mg/L

0.1361 mg/L





Delaware Public Health Laboratory 30 Sunnyside Road Smyrna, DE 19977 (302) 223-1520

* \$ 2 8 3 8 0 7 *	TEST Request: □ Routine □ Complaint □ Confirmation* X Special □ MRT □ Field Blank □ Split □ Duplicate □ Replacement*
469069 Collection Date:4/28/2011	*Confirmation & *Replacement Requires Original Sample #
Collection Time: (military)(ロ:リコ	
PWSID #_PRIVATESupply Name	Ex. 6 Personal Privacy (PP)
Facility Name: Ex. 6 Per (For example: Treatment Pl	rsonal Privacy (PP)
Sample Point	
AST/Operator # Collector's Na DE-331 Ex. 4 CBI	me Collector's Phone Collector's Fax #
Free ChlorineXmg/L Total	ChlorineXmg/L X Not Chlorinated
pH Field Test Monitoring Sche	edule: 🗆 Mthly. 🗆 Qtr. 🗆 Ann. 🗆 Tri. 🗆 Oth
Analyte Group: Please check box of i	individual test required.
	ULL CHEM: (mg/L) ☐ Sulfate Routine Chem. plus: Alk, Hardness, TDS]
X TRACE: (mg/L) M [As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Sb, Ti]	In ☐ Cu ☐ Anions CN [ÑO₃, NO₂, F, Cl]
	Pesticides
☐ 531 ☐ 504 ☐ Gross Alpha	a ☐ Radium 226/228 ☐ Other:
Field Blank ID Number:	A. Carlotte and the car

Division of Public Health Office of Drinking Water 43 S. DuPont Highway Dover, DE 19901

04/28/2011 10:42 at

04/29/2011 12:20 pr

Ex. 4 CBI

331

Date Collected:

Date Received:

Collected By:

Collector ID:

Sampled pH:

Free CI:

Total CI:



Delaware Health and Social Services

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Office of Drinking Water Agency:

S283807 (469069) Label ID (Sample #): Property Owner/Facility: Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE OT

Sample Point:

Sample Location: Ex. 6 Personal Privacy (PP)

Sample Type:

Chlorination: Not Chlorinated or

Tested

Notes / Comments: ZINC ALSO PLEASE

* ·			
Test	Result	MCL	Date Released
EPA200.8			
Beryllium	0.0008 mg/L	<=0.004	05/09/2011
Chromium	0.0014 mg/L	<=0.1	05/09/2011
Manganese	0.2023 mg/L	<=0.05	05/09/2011
Nickel	0.0061 mg/L		05/09/2011
Zinc	0.0233 mg/L	<=5	05/09/2011
Arsenic	<0.0005 mg/L	<=0.01	05/09/2011
Selenium	<0.010 mg/L	<=0.05	05/09/2011
Cadmium	<0.0005 mg/L	<=0.005	05/09/2011
Antimony	<0.0005 mg/L	<=0.006	05/09/2011
Barium	0.4221 mg/L	<=2.0000	05/09/2011
Mercury	<0.0005 mg/L	<=0.002	05/09/2011
Thallium	<0.0005 mg/L	<=0.002	05/09/2011
Lead	0.0006 mg/L	<=0.015	05/09/2011
Uranium	<0.0005 mg/L	<=0.03	05/09/2011

Delaware Public Health Laboratory 30 Sunnyside Road Smyrna, DE 19977 (302) 223-1520

F * \$ 2 8 3 8 0 5 * ODW 469070	TEST Request: Routine Complaint Confirmation* X Special MRT Field Blank Split Duplicate Replacement*
Collection Date:4/28/2011	*Confirmation & *Replacement Requires Original Sample #
Collection Time: (military) 10:31	
PWSID #_PRIVATESupply Name:	Ex. 6 Personal Privacy (PP)
Facility Name: Ex. 6 Person (For example: Treatment Plant, Sampling Station, or Distribution System)	onal Privacy (PP) (For example: TP001, SSO01, DS001, or WL001/DNREC ID#)
Sample Point Well Tap	Sample Point # W. T. (For example: DEP001, MRT001, SP042, or WT001)
AST/Operator # Collector's Name	
DE-331 Ex. 4 CBI	382_ Ex. 6 Personal Privacy (PP)741-8631
Free Chlorine X mg/L Total Ch	nlorineXmg/L X Not Chlorinated
pH Field Test Monitoring Schedu	le: 🗆 Mthly. 🗆 Qtr. 🗆 Ann. 🗆 Tri. 🗆 Oth
Analyte Group: Please check box of indi	vidual test required.
	L CHEM: (mg/L)
X TRACE: (mg/L)	☐ Cu ☐ Anions CN [NO₃, NO₂, F, CI]
VOCs TTHM THAA5 Pest	ticides
☐ 531 ☐ 504 ☐ Gross Alpha ☐	Radium 226/228 3 Other:
Field Blank ID Number:	

Division of Public Health Office of Drinking Water
43 S. DuPont Highway
Dover, DE 19901



Delaware Health and Social Services

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): S283805 (469070)

Ex. 6 Personal Privacy (PP) Property Owner/Facility:

PWSID:

PRIVATE WT____

Sample Point:

Ex. 6 Personal Privacy (PP) Sample Location:

Sample Type:

SP

Chlorination: Not Chlorinated or

Tested

Notes / Comments: ZINC ALSO PLEASE Date Collected:

04/28/2011 10:31 ai

Collected By:

Ex. 4 CBI 331

Collector ID:

Date Received:

04/29/2011 12:20 pt

Sampled pH:

Free CI: Total CI:

Specimen Note:

		i romani na matamati di madistra mana manimara manimara manamana na manamana i a citica mana manamana manama m	gygyntyggggggggggygygygygygyggggggggggg
Test	Result	MCL	Date Released
EPA200.8	and stated to the production and the stated of the stated of the stated of the stated to the stated to the stated of the stated		
Beryllium	0.0038 mg/L	<=0.004	05/09/2011
Chromium	0.0016 mg/L	<=0.1	05/09/2011
Manganese	0.1906 mg/L	<=0.05	05/09/2011
Nickel	0.0112 mg/L		05/09/2011
Zinc	1.4265 mg/L	<=5	05/09/2011
Arsenic	<0.0005 mg/L	<=0.01	05/09/2011
Selenium	<0.010 mg/L	<=0.05	05/09/2011
Cadmium	0.0005 mg/L	<=0.005	05/09/2011
Antimony	<0.0005 mg/L	<=0.006	05/09/2011
Barium	0.8478 mg/L	<=2.0000	05/09/2011
Mercury	<0.0005 mg/L	<=0.002	05/09/2011
Thallium	<0.0005 mg/L	<=0.002	05/09/2011
Lead	0.0010 mg/L	<=0.015	05/09/2011
Uranium	<0.0005 mg/L	<=0.03	05/09/2011



Print Date: 05/09/2011

CHEMICAL FORM

Page 145 of 169 Delaware Public Health Laboratory 30 Sunnyside Road Smyrna, DE 19977 (302) 223-1520

F * \$ 2 8 3 8 0 3 * ODW 469072	TEST Request: Routine Complaint Confirmation* X Special MRT Field Blank Split Duplicate Replacement* *Confirmation & *Replacement Requires Original Sample #
Collection Date:4/28/2011	1.cquires original oumple 17
Collection Time: (military) 10:06	
PWSID #_PRIVATE Supply Name:	Ex. 6 Personal Privacy (PP)
Facility Name: (For example: Treatment	Facility #
Sample Point	Sample Point # 07
AST/Operator # Collector's Name	(For example: DEP001, MRT001, SP042, or WT001)
DE-331 Ex. 4 CBI	382- Ex. 6 Personal Privacy (PP) 741-8631
Free Chlorine X mg/L Total Ch	
pH Field Test Monitoring Schedu	le: ☐ Mthly. ☐ Qtr. ☐ Ann. ☐ Tri. ☐ Oth
Analyte Group: Please check box of indi	vidual test required.
ROUTINE: (mg/L)	L CHEM: (mg/L) Sulfate Itine Chem. plus: Alk, Hardness, TDS]
X TRACE: (mg/L)	☐ Cu ☐ Anions ☐ CN [NO₃, NO₂, F, CI]
VOCs TTHM HAA5 Pest	ticides
☐ 531 ☐ 504 ☐ Gross Alpha	☐ Radium 226/228 ☐ Other:
Field Blank ID Number:	

Division of Public Health Office of Drinking Water 43 S. DuPont Highway Dover, DE 19901

Ph: (302) 741-8630, FAX: (302) 741-8631 or (302) 661-7228





Delaware Health and Social Services Page 146 of 169 **Division of Public Health Laboratory**

30 Sunnyside Road Smyrna, Delaware 19977 Phone: (302) 223-1520 Fax: (302) 653-2877

Agency:

Office of Drinking Water

Label ID (Sample #):

S283803 (469072)

Property Owner/Facility Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE

Sample Point:

OT

Sample Location:

Ex. 6 Personal Privacy (PP)

Sample Type:

SP

Chlorination:

Not Chlorinated or

Tested

Notes / Comments:

ZINC

Date Collected:

04/28/2011 10:06 ai

Ex. 4 CBI Collected By:

Collector ID:

331

Date Received:

04/29/2011 12:20 pt

Sampled pH:

Free CI:

Total CI:

Specimen Note:

Test	Result •	MCL	Date Released
EPA200.8	entre en de la composition della composition della composition della composition della composition della composition della composition della composition della composition della composition della composition della composition della composition della composition della composition della composition della composition del	nativise mengeliki mengentangan mengentangan mengelikan mengelikan mengelikan mengelikan mengenan 186	oranic par con acquire british (brankligh barranic grant and the second second
Beryllium	0.0005 mg/L	<=0.004	05/09/2011
Chromium	0.0013 mg/L	<=0.1	05/09/2011
Manganese	0.0977 mg/L	<=0.05	05/09/2011
Nickel	0.0046 mg/L		05/09/2011
Zinc	0.0422 mg/L	<=5	05/09/2011
Arsenic	<0.0005 mg/L	<=0.01	05/09/2011
Selenium	<0.010 mg/L	<=0.05	05/09/2011
Cadmium	<0.0005 mg/L	<=0.005	05/09/2011
Antimony	<0.0005 mg/L	<=0.006	05/09/2011
Barium	0.5250 mg/L	<=2.0000	05/09/2011
Mercury	<0.0005 mg/L	<=0.002	05/09/2011
Thallium	<0.0005 mg/L	<=0.002	05/09/2011
Lead	0.0006 mg/L	<=0.015	05/09/2011
Uranium	<0.0005 mg/L	<=0.03	05/09/2011



CHEMICAL FORM

Page 147 of 169
Delaware Public Health Laboratory
30 Sunnyside Road
Smyrna, DE 19977
(302) 223-1520

3. (2)	(302) 223-1520
S * \$ 2 8 3 8 0 1 * Note: 469074	TEST Request: □ Routine □ Complaint □ Confirmation* X Special □ MRT □ Field Blank □ Split □ Duplicate □ Replacement*
Collection Date:4/28/2011	*Confirmation & *Replacement Requires Original Sample #
Collection Time: (military) 0955	
PWSID #_PRIVATE Supply Name:	Ex. 6 Personal Privacy (PP)
Facility Name: (For example: Treatment Ex. 6 Personal Privacy (PP	Facility #
Sample Point	Sample Point #
AST/Operator # Collector's Name	
DE-331 Ex. 4 CBI	
_	llorineXmg/L X Not Chlorinated
pH Field Test Monitoring Schedul	le: 🛮 Mthly. 🗆 Qtr. 🗆 Ann. 🗆 Tri. 🗀 Oth
Analyte Group: Please check box of indi	vidual test required.
ROUTINE: (mg/L) FUL [NO ₃ , NO ₂ , Fe, Na, pH, F, Cl,] [Rou	L CHEM: (mg/L) Sulfate Itine Chem. plus: Alk, Hardness, TDS]
X TRACE: (mg/L)	☐ Cu ☐ Anions CN [NO ₃ , NO ₂ , F, Cl]
□ VOCs □ TTHM □ HAA5 □ Pest EPA 524.2 EPA 552.2 EPA 50	ticides
☐ 531 ☐ 504 ☐ Gross Alpha	Radium 226/228
Field Blank ID Number:	

Division of Public Health Office of Drinking Water 43 S. DuPont Highway Dover, DE 19901

Ph: (302) 741-8630, FAX: (302) 741-8631 or (302) 661-7228



Delaware Health and Social Services Page 148 of 169

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977

Phone: (302) 223-1520 Fax: (302) 653-2877

Agency:

Office of Drinking Water

Label ID (Sample #):

S283801 (469074)

Property Owner/Facility Ex. 6 Personal Privacy (PP)

PWSID:

PRIVATE

Sample Point:

OT

Sample Location:

Ex. 6 Personal Privacy (PP)

Sample Type:

SP

Chlorination:

Not Chlorinated or

Notes / Comments:

Tested ZINC ALSO PLEASE **Date Collected:**

04/28/2011 9:55 an

Collected By:

Ex. 4 CBI

Collector ID:

331

Date Received: Sampled pH:

04/29/2011 12:20 pt

Free CI:

Total CI:

Specimen Note:

والمرجوع المتراوي والمتراوية والمتراوية والمتراوية والمراوية	بقياسانينية كمنتان فالمراب والمسيدة	هندية ويسيسون فيكونون	منيه
ata:			

	an nakani na mana ini ini mani saka si kanina kaninakan kanina kanina kanina ini maka mini si ka mana ana		and the second s
Test	Result	MCL	Date Released
EPA200.8			
Beryllium	0.0017 mg/L	<=0.004	05/09/2011
Chromium	0.0023 mg/L	<=0.1	05/09/2011
Manganese	0.0823 mg/L	<=0.05	05/09/2011
Nickel	0.0071 mg/L		05/09/2011
Zinc	0.3646 mg/L	<=5	05/09/2011
Arsenic	<0.0005 mg/L	<=0.01	05/09/2011
Selenium	<0.010 mg/L	<=0.05	05/09/2011
Cadmium	<0.0005 mg/L	<=0.005	05/09/2011
Antimony	<0.0005 mg/L	<=0.006	05/09/2011
Barium	0.2 74 5 mg/L	<=2.0000	05/09/2011
Mercury	<0.0005 mg/L	<=0.002	05/09/2011
Thallium	<0.0005 mg/L	<=0.002	05/09/2011
Lead	0.0018 mg/L	<=0.015	05/09/2011
Uranium	<0.0005 mg/L	<=0.03	05/09/2011
	•		



CHEMICAL FORM

Delaware Public Health Laboratory 30 Sunnyside Road Smyrna, DE 19977 (302) 223-1520

F * S 2 8 3 7 9 9 * ODW 46905	TEST Request: Routine Complaint Confirmation* X Special MRT Field Blank Split Duplicate Replacement*
Collection Date:4/28/2011	*Confirmation & *Replacement Requires Original Sample #
Collection Time: (military) 10;2(
PWSID #_PRIVATE Supply Name:	Ex. 6 Personal Privacy (PP)
Facility Name: Ex. 6 Perso	nal Privacy (PP)
Sample Point	Sample Point # O. T
AST/Operator # Collector's Nam	(For example: DEP001, MRT001, SP042, or WT001) e Collector's Phone Collector's Fax #
DE-331 Ex. 4 CBI _	
Free ChlorineXmg/L Total Cl	hlorineXmg/L X Not Chlorinated
pH Field Test Monitoring Schedu	ıle: □ Mthly. □ Qtr. □ Ann. □ Tri. □ Oth
Analyte Group: Please check box of ind	lividual test required.
ROUTINE: (mg/L) FUL [NO ₃ , NO ₂ , Fe, Na, pH, F, Cl,] [Rot	L CHEM: (mg/L) ☐ Sulfate utine Chem. plus: Alk, Hardness, TDS]
X TRACE: (mg/L)	☐ Cu ☐ Anions ☐ CN [NO₃, NO₂, F, Cl]
□ VOCs □ TTHM □ HAA5 □ Pes EPA 524.2 EPA 552.2 EPA 5	sticides
☐ 531 ☐ 504 ☐ Gross Alpha	☐ Radium 226/228 ☐ Other:
Field Blank ID Number:	

Division of Public Health Office of Drinking Water 43 S. DuPont Highway Dover, DE 19901

Ph: (302) 741-8630, FAX: (302) 741-8631 or (302) 661-7228



Delaware Health and Social Services Page 150 of 169

Date Collected:

Date Received:

Collected By:

Collector ID:

Sampled pH:

Free CI:

Total CI:

04/28/2011 10:21 at

04/29/2011 12:20 pi

Ex. 4 CBI

331

Division of Public Health Laboratory

30 Sunnyside Road Smyrna, Delaware 19977 Phone: (302) 223-1520 Fax: (302) 653-2877

Agency: Office of Drinking Water

Label ID (Sample #): S283799 (469075)

Property Owner/Facility: Ex. 6 Personal Privacy (PP)

Property Owner/Facility: E
PWSID:
P

PRIVATE

Sample Point:

OT

Sample Location:

Ex. 6 Personal Privacy (PP)

Sample Type:

SP

Chlorination:

Not Chlorinated or

Tested

Notes / Comments:

ZINC ALSO PLEASE

Specimen Note:

- a come a transaction confirmation of the spirit of the s	garmingaga gargamay garani, ac, ao xayan na an na an an an an an an an an an a	Samuel and the second and the second and the second and the second and the second and the second and the second	enny maké sakina hana sana ana mpinagsih, pinasisa api
Test	Result	MCL	Date Released
o oscil stanil o usos mostilata antinum ilais suom musi stanilia ali suom sila perangen	างราชที่ที่ของเขาสารและเป็นที่เกิดเกิดเกิดเกิดเกิดเกิดเกิดเกิดเกิดเกิด	<u> Sangkan na nakanana na manda kakanakan naka</u> na	allatinin almost ja aantallala millaanii ka k
EPA200.8			
Beryllium	<0.0005 mg/L	<=0.004	05/09/2011
Chromium	0.0012 mg/L	<=0.1	05/09/2011
Manganese	0.0408 mg/L	<=0.05	05/09/2011
Nickel	0.0025 mg/L		05/09/2011
Zinc	0.0303 mg/L	<=5	05/09/2011
Arsenic	<0.0005 mg/L	<=0.01	05/09/2011
Selenium	<0.010 mg/L	<=0.05	05/09/2011
Cadmium	<0.0005 mg/L	<=0.005	05/09/2011
Antimony	<0.0005 mg/L	<=0.006	05/09/2011
Barium	0.2289 mg/L	<=2.0000	05/09/2011
Mercury	<0.0005 mg/L	<=0.002	05/09/2011
Thallium	<0.0005 mg/L	<=0.002	05/09/2011
Lead	0.0029 mg/L	<=0.015	05/09/2011
Uranium	<0.0005 mg/L	<=0.03	05/09/2011







630 Churchmans Road Newark, Delaware 19702 302-266-9121 · 454-8720 (FAX) WWW.ATLANTICCOASTLABS.COM

REPORT OF ANALYSIS

Delaware Division of Public Health

43 S. Dupont Highway

Dover, DE 19901

Order Number

A11041628

Project Name:

OD W

Receive Date:

4/29/2011

Client Code:

DEL_HEALTH

Attention: Ms. Anita Beckel

The reported results relate only to the samples as received by the laboratory. This report shall not be reproduced except in full without the written permission of the laboratory or client.

The following abbreviations may appear in this report: RL refers to Reporting Limit

N/A refers to Not Applicable

Any organic compound containing (Surr) at the beginning of the compound name is a surrogate compound added to all samples to monitor the analytical process and is reported in % Recovery.

The following data qualifiers may be used in this report. The data qualifier(s) will appear in the qualifier column of this report.

Data Qualifiers:

- B Analyte detected in laboratory blank. Result may be biased high.
- Laboratory Control Sample outside the acceptance criteria.
- X Analyte hold time was exceeded.
- Analyte present. Reported value may not be accurate or precise.
- S Surrogate outside acceptance criteria.
- Analyte concentration exceeded the upper limit of calibration curve.

The following tests have a maximum hold time of 15 minutes. If the test is not performed in the field then the result may not be suitable for regulatory purposes. (pH, sulfite, chlorine free, and chlorine total)

Laboratory Accreditations:

State of Delaware - DE00011

State of Pennsylvania - 68-335

State of Maryland - #138

State of New Jersey - DE568

Report comments applicable to this order number appear below:

Approved:

Reported:

5/13/2011 3:11:41 PM

Page 1 of 5



630 Churchmans Road Newark, Delaware 19702 302-266-9121 · 454-8720 (FAX) WWW.ATLANTICCOASTLABS.COM

Delaware Division of Public Health

Order Number: A11041628

Sample # A110416.	28-01	***************************************		Sample Date: 4/28/2011 10:13				
Site:		***************************************	••••••	000000000000000000000000000000000000000		Matri	x: Drinking Wat	er
Client Sample ID:	S283813							
Sample Comments:	None							
Test		Result	Qualifier	RL	<u>Units</u>	Method	Analysis Date	Analyst
Cyanide, Distillation Cyanide, Total		5/2/11 < 0.01		N/A 0,01	Date Completed mg/L	ЕРА 335.4 ЕРА 335.4	5/4/2011 10:19:00 AN	Ex. 4 CBI
Sample # A110416:	28-02					Sam	ple Date: 4/28/20	11 10:21
Site:				***************************************		Matri	x: Drinking Wat	er
Client Sample 1D:	S283812						-	
Sample Comments:	None							
<u>Test</u>		Result	Qualifier	<u>RL</u>	Units	Method	Analysis Date	Analyst
Cyanide, Distillation		5/2/11		N/A	Date Completed	EPA 335.4		Ev. 4 CBI
Cyanide, Total		< 0.01		0.01	mg/L	EPA 335.4	5/4/2011 10:19:00 AM	Ex. 4 CBI
Sample # A1104162	28-03					Sam	ple Date: 4/28/20	11 11:06
Site:						Matri	x: Drinking Wat	er
Site:							,	

Sample Comments: None

Test Qualifier RL Analysis Date Analyst Result Units Method Cyanide, Distillation 5/2/11 N/A Date Completed EPA 335.4 Ex. 4 CBI Cyanide, Total 0.02 0.01 EPA 335.4 5/4/2011 10:19:00 AM mg/L

Sample # A11041628-04 Sample Date: 4/28/2011 10:55

Site: Matrix: Drinking Water

Client Sample ID: S283808 Sample Comments: None

Analysis Date Analyst Test Qualifier RL. Units Method Result Cyanide, Distillation EPA 335.4 5/2/11 N/A Date Completed Ex. 4 CBI Cyanide, Total < 0.01 0.01 mg/L EPA 335.4 5/4/2011 10:19:00 AM

Sample # A11041628-05 Sample Date: 4/28/2011 10:41

Site: Matrix: Drinking Water

S283806 Client Sample ID: Sample Comments: None

Test Qualifier. RL Units Method Analysis Date Analyst Cyanide, Distillation 5/4/11 N/A Date Completed EPA 335.4 Ex. 4 CBI EPA 335.4 5/4/2011 10:19:00 AM Cyanide, Total 0.01 < 0.01 mg/L

Ex. 4 CBI 5/13/2011 3:11:41 PM Reported: Approved:

Page 2 of 5



630 Churchmans Road
Newark, Dolaware 19702
302-266-9121 + 454-8720 (FAX)
WWW.ATLANTICCOASTLABS.COM

Delaware Division of Public Health

Order Number: A11041628

Sample # A110416	28-06		*******************************	000000000000000000000000000000000000000		Sample Date: 4/28/2011 10:30
Site: Client Sample ID: Sample Comments:	S283804 None					Matrix: Drinking Water
<u>Test</u> Cyanide, Distillation Cyanide, Total		Result 5/4/11 < 0.01	Qualifier	<u>RL</u> N/A 0.01	Units Date Completed mg/1.	Method Analysis Date Analyst EPA 335.4 EPA 335.4 EX. 4 CBI
Sample # A1104163	28-07					Sample Date: 4/28/2011 10:05
Site: Client Sample ID: Sample Comments:	S283802 None					Matrix: Drinking Water
<u>Test</u> Cyanide, Distillation Cyanide, Total		Result 5/4/11 < 0.01	Qualifier	RL N/A 0.01	Units Date Completed mg/L	Method Analysis Date Analyst EPA 335.4 EPA 335.4 5/4/2011 10:19:00 AM EX. 4 CBI
Sample # A1104162	28-08					Sample Date: 4/28/2011 9:54
Site: Client Sample ID: Sample Comments:	S283800 None					Matrix: Drinking Water
Test Cyanide, Distillation Cyanide, Total		<u>Result</u> 5/4/11 < 0.01	Qualifier	<u>RL</u> N/A 0.01	Units Date Completed mg/L	Method Anniysis Date Annivst EPA 335.4 EPA 335.4 EPA 335.4 EX. 4 CBI
Sample # A1104162	28-09					Sample Date: 4/28/2011 11:57
Site: Client Sample ID: Sample Comments:	S283774 None					Matrix: Drinking Water
<u>Test</u> Cyanide, Distillation Cyanide, Total		<u>Result</u> 5/4/11 < 0.01	Qualifier	<u>RL</u> Na 0.01	Units Date Completed mg/L	Method Analysis Date Analyst EPA 335.4 EPA 335.4 S/4/2011 10:19:00 AM Ex. 4 CBI
Sample # A1104162	8-10	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		***************************************	***************************************	Sample Date: 4/28/2011 11:43
Site: Client Sample ID: Sample Comments:	S283772 None					Matrix: Drinking Water
Test Cyanide, Distillation Cyanide, Total		Result 5/4/11 < 0.01	Qualifier	RI. N/A 0.01	Units Date Completed mg/L	Method Analysis Date Analysi EPA 335.4 EPA 335.4 5/4/2011 10:19:00 AM Ex. 4 CBI

Approved: Ex. 4 C

Reported:

5/13/2011 3:11:41 PM

Page 3 of 5



630 Churchmans Road Newark, Delaware 19702 302-266-9121 * 454-8720 (FAX) WWW.ATLANTICCOASTLABS.COM

Delaware Division of Public Health

Order Number: A11041628

Sample # A11041628-11

Sample Date: 4/28/2011

Site:

Matrix: Drinking Water

Client Sample ID:

S283770

Sample Comments:

None

Test

Result Qualifier RL Units Method

Analysis Date

Analyst

11:36

Cyanide, Distillation Cyanide, Total

5/6/11 < 0.01 N/A 0.01 Date Completed mg/L

EPA 335.4 EPA 335.4

5/11/2011 3:11:00 PM

Sample Date: 4/28/2011

Ex. 4 CBI

11:28

Sample # A11041628-12

Matrix: Drinking Water

Site:

Client Sample ID:

S283768

Sample Comments:

Test

Cyanide, Distillation

Cyanide, Total

Result 5/6/11

< 0.01

Qualifier

RL N/A 0.01

Units Date Completed mg/L

Method EPA 335.4 EPA 335.4 Analysis Date

5/11/2011 3:11:00 PM

Analyst

Ex. 4 CB

Ex. 4 CBI Approved: Fresiders

Reported:

5/13/2011 3:11:41 PM

Page 4 of 5

Atlantic Coast

Laboratories inc. 630 Churchmans Road Newark, Delaware 19702 ACLI@atlanticcoastiabs.com 302-266-9121 454-8720 (FAX)

SAFE DRINKING WATER ACT (SDWA) CHAIN OF CUSTODY RECORD STATE OF DELAWARE

DHSS OFFICE OF DRINKING WATER Blue Hen Corporate Center 655 8ay Road, Suite 203 Dover, DE 19901 302-741-8630 741-8631 (FAX)

······································	Preservative Containe: Type	NH,O Clear Vlai	Na ₂ S ₂ O ₂ Clear Vial	Na ₂ S ₂ O ₂ Clear Viai	NaOH Plastic	Na;S;O: Amber G.	2mL HCL Amber G.	Weter Supply Name:
	Volume Volume	40 ml	40 mt	40 mL	8 02	11	IL	0 D6
	*549****	-100 3 Call.		35.100	222	<u>*</u>		نگانی بیدین
	Analysis Requested	HAAS	504	505	Cyanise	515	\$25	ysons registrate
Barcode	Date Time		Kumi	xer of Contai	ners for one sar	npie slip		A part of
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Completed by:

Ex. 4 CBI

Date:

44

Attach additional pages as necessary using Correction Action Continuation Sheet

CYANIDE ANALYSIS

Date/Time of Anlaysis 04-May-11 10:19

File Name:

C050411.FDT

Analyst: Reviewed by:

Ex. 4 CBI

Date: OU

LFB Conc. ICV Conc.

0.206 0.200

										LFB and		Total or Free
<u>Sample</u> Identification	<u>Cup</u> Number	Sample Type	Manual Dilution	Weight	Doguit	l laita	8852	C	Sample RPD / %	40. 40000000000000000	00.04-4	Cyanide (C)
cal std 0.50 mg/L	IVUIIDEI	CalStd	1	vveignt 1	Result 6170368.000	Units uv-s	MDL	Comments	Recovery	Recovery	QC Status	(Circle One) Total Free
cal std 0.20 mg/l	2	CalStd	1	1	2790144.000	uv-s	***************************************					Total Free
cal std 0.10 mg/L	3	CalStd	1	1	1474086.000	uv-s						Total Free
cal std 0.05 mg/i	4	CalStd	1	1	747238.000	uv-s						Total Free
cal std 0.02 mg/l	5	CalStd	1	1	324109.000	uv-s						Total Free
cal std 0.01 mg/l	6	CalStd	1	1	188058.000	uv-s						Total Free
cal std 0.005 mg/l	7	CalStd	-1	1	110541.000	uv-s						Total Free
cal std 0.000 mg/l	8	CalStd	1	1	0.000	uv-s						Total Free
ccv2	4	AbsChkSt	-1	11	0.050	mg/L	0.005			99%	PASS	Total Free
ccb	8	Blank	-1	1	ND	mg/L	0.005			රියනි	EATC	Total Free
icv	9	AbsChkSt	1	14	0.220	mg/L	0.005			110%	PASS	Total Free
icb	8	Blank	1	1	ND	mg/L	0.005				PASS	Total Free
blk 4/29/11	1	Blank	1	1	ND	mg/L	0.005					Total Free
lfb	2	RelChkStd	1	1	0.219	mg/L	0.005			106%	PASS	Total Free
a11041572-02	3	Dup1	1	1	ND	mg/L	0.005					Total Free
a11041572-02	4	Dup2	1	1	ND	mg/L	0.005		0.0%			Total Free
a11041572-02	5	Spiked	1	1	0.173	mg/L	0.005		84%			Total Free
a11041370-04	6	Unknown	1	1	ND	mg/L	0.005					Total Free
a11041373-04	7	Unknown	1	1	ND	mg/L	0.005					Total Free
a11041415-03	8	Unknown	1	1	ND	mg/L	0.005					Total Free
a11041482-02	9	Unknown	1	1	ND	mg/L	0.005					Total Free
a11041577-04	10	Unknown	1	1	ND	mg/L	0.005					Total Free
blk 5/2/11	11	Blank	50	1	ND	mg/L	0.25					Total Free
Ifb	12	RelChkStd	50	1	0.206	mg/L	0.25			100%	PASS	Total Free

CYANIDE ANALYSIS

Date/Time of Anlaysis 04-May-11 10:19

File Name; C050411.FDT

Analyst: Reviewed by:

Ex. 4 CBI

Date:

LFB Conc. 0.206

ICV Conc. 0.200

<u>Sample</u> identification	<u>Cup</u> Number	Sample Type	Manual Dilution	Weight	Result	Units	MDL.	Comments		Sample RPD / % Recovery				QC Status	Total or Free Cyanide (Circle One)
a11041341-01 solid	13	Dup1	50	1	0.257	mg/L	0.25						To al Free		
a11041341-01 solid	14	Dup2	50	1	0.320	mg/L	0.25		(-21.7%)				Total Free		
a11041341-01 solid	15	Spiked	50	1	9.622	mg/L	0.25		***************************************	90%			To al Free		
1104020-01a solid	16	Unknown	50	1	ND	mg/L	0.25			***************************************			Total Free		
bik 5/2/11	17	Blank	1	1	ND	mg/L	0.005					5	Total Free		
lfb	18	RelChkStd	1	1	0,200	mg/L	0.005	:			97%	PASS	Total Free		
a11041579-05	19	Dup1	1	1	ND	mg/L	0.005			innnannnnnnnnnnhiiddina			Total Free		
a11041579-05	20	Dup2	1	1	ND	mg/L	0.005	***************************************	0.0%	***************************************			Total Free		
a11041579-05	21	Spiked	1	1	0.209	mg/L	0.005			101%			Total Free		
a11041617-03	22	Unknown	1	1	ND	mg/L	0.005						Total Free		
CCV-Cyanide	2	AbsChkSt	1	1	0.202	mg/L	0.005				101%	PASS	Total Free		
CCB-Cyanide	8	Blank	1	1	ND	mg/L	0.005	***************************************	*******************************		обисковничновничновничновничнов	PASS	Total Free		
a11041628-01	23	Unknown	1	1	ND	mg/L	0.005						To al Free		
a11041628-02	24	Unknown	1	1	ND	mg/L	0.005						Total Free		
a11041.628-03	25	Unknown	1	1	0.017	mg/L	0.005	·				 	Total Free		
a11041628-04	26	Unknown	1	1	ND	mg/L	0.005				<u> </u>		Total Free		
blk 5/4/11	27	Blank	1	1	ND	mg/L	0,005						Total Free		
lfb	28	RelChkStd	1	1	0.215	mg/L	0.005				104%	PASS	Togal Free		
a11041628-05	29	Dup1	1	1	ND	mg/L	0.005						Total Free		
a11041628-05	30	Dup2	1	1	ND	mg/L	0.005		0.0%		1		Total Free		
a11041628-05	31	Spiked	1	1	₂₅ 0,203	mg/L	0.005			99%			Total Free		
a11041628-06	32	Unknown	1	1	ND	mg/L	0.005						Total Free		
a11041628-07	33	Ųnknown	1	1	ND	mg/L	0.005	<u> </u>		1		***************************************	Total Free		
a11041628-08	34	Unknown	1	1	ND	mg/L	0.005	<u> </u>					Total Free		

CYANIDE ANALYSIS

Date/Time of Anlaysis 04-May-11 10:19

Analyst:

Date:

LFB Conc. 0.206

0.200

File Name: C050411.FDT Reviewed by:

ICV Conc.

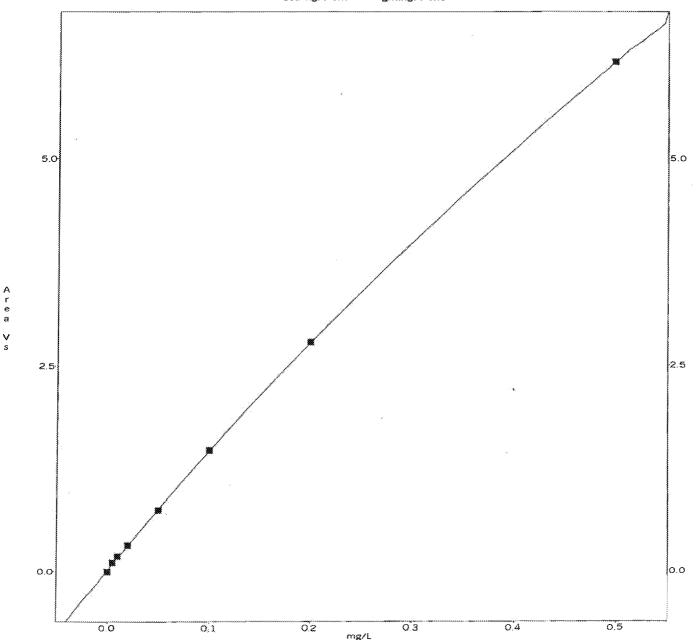
Sample_ identification	<u>Cup</u> Number	Sample Type	Manual Dilution	Weight	Result	Units	MDL	Comments	Sample RPD / % Recovery	LFB and CCV % Recovery	QC Status	Total or Free Cyanide (Circle One)
a11041628-09	35	Unknown	1	1	ND	mg/L	0.005					To al Free
a11041628-10	36	Unknown	1	1	ND	mg/L	0.005					Total Free
CCV-Cyanide	2	AbsChk S t	1	1	0.201	mg/L	0.005			100%	PASS	Total Free
CCB-Cyanide	8	Blank	1	1	ND	mg/L	0.005				PASS	Total Free

Cyanide, Tot	ca.	L
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Lvl	Area	mg/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic 8 RSD	Residual 2nd Poly
1	6170368	0.500	6170368					0.0	0.0	0.0
2	2790144	0.200	2790144					0.0	0.0	~0.1
.3	1474086	0.100	1474086				9	0.0	0.0	~0.1
4	747238	0.050	747238					0.0	0.0	2.6
5	324109	0.020	324109					0.0	0.0	-0.4
6	188058	0.010	188058					0.0	0.0	-10.9
7	110541	0.005	110541					0.0	0.0	~20.1
8	0	0.000	0					0.0	0.0	

2nd Order Poly Cono = 2.665e-015 Area* + 6.477e-008 Area - 1.189e-003 x = 1.0000

Scaling: None - Weighting: None



Printed: Wednesday, May 04, 2011 - 10:59 AM

Creator: Ex. 4 CBI

Creation Date: May 4, 2011 8:04:47 Last Modified: May 4, 2011 9:28:26

Description: Cyanide-Distilled

Cup#	Sample ID	Manual Dilution	Sample Type
1	cal std 0.50 mg/L	1.0000	CalStd
2	cal std 0.20 mg/l	1.0000	CalStd
3	cal std 0.10 mg/L	1.0000	CalStd
4	cal std 0.05 mg/l	1.0000	CalStd
5	cal std 0.02 mg/l	1,0000	CalStd
6	cal std 0.01 mg/l	1.0000	CalStd
7	cal std 0.005 mg/l	1.0000	CalStd
8	cal std 0.000 mg/l	1.0000	CalStd
1	blk 4/29/11	1.0000	Blank
2	lfb	1.0000	RelChkStd
3	a11041572-02	1.0000	Dup1
4	a11041572-02	1.0000	Dup2
5	a11041572-02	1.0000	Spiked
6	a11041370-04	1.0000	Unknown
7	a11041373-04	1.0000	Unknown
8	a11041415-03	1.0000	Unknown
9	a11041482-02	1.0000	Unknown
10	a11041577-04	1.0000	Unknown
11	blk 5/2/11	50.0000	Blank
12	Ifb	50.0000	RelChkStd
13	a11041341-01 solid	50.0000	Dup1
14	a11041341-01 solid	50,0000	Dup2
15	a11041341-01 solid	50.0000	Spiked
16	1104020-01a solid	50.0000	Unknown
17	blk 5/2/11	1.0000	Blank
18	lfb .	1.0000	RelChkStd
19	a11041579-05	1.0000	Dup1
20	a11041579-05	1.0000	Dup2
21	a11041579-05	1.0000	Spiked
22	a11041617-03	1.0000	Unknown
23	a11041628-01	1.0000	Unknown
24	a11041628-02	1.0000	Unknown
25	a11041628-03	1.0000	Unknown
26	a11041628-04	1.0000	Unknown
27	blk 5/4/11	1.0000	Blank
	Ifb	1.0000	RelChkStd
29	a11041628-05	1.0000	Dup1
······································	a11041628-05	1.0000	Dup2
	a11041628-05	1.0000	Spiked
	a11041628-06	1.0000	Unknown

Page 164 of 169

Page 2

Cup #	Sample ID	Manual Dilution	Sample Type	
33	a11041628-07	1.0000	Unknown	
34	a11041628-08	1.0000	Unknown	
35	a11041628-09	1.0000	Unknown	
36	a11041628-10	1.0000	Unknown	

CYANIDE DISTILLATION LOGBOOK

Analyst: Alla)

Block Sample Date Time of Digestion Present			s'		4						* .	Δr	nalysis
1-1 Blk					ent o						00000000000000000000000000000000000000	(T	otal or
1.2 LFB 1.3 S1 Allo Alis 79 - 05 Y N Y N I A F 1.4 S1 dup 1.5 S1 spk 1.6 S2 Allo Alis 70 - 03 Y N Y N Y N F 1.7 S3 Allo Alis 80 - 01 Y N Y N P 1.9 S5 Allo Alis 80 - 03 Y N Y N P 1.10 S6 Allo Alis 80 - 04 Y N Y N P 1.10 S6 Allo Alis 80 - 04 Y N Y N P 1.11 S7 1.12 S8 1.13 Y N Y N T F 1.14 S10 Y N Y N T F 1.15 S1 spk 1.16 S2 Alis S11 dup 1.17 S1 Y N Y N T F 1.18 S11 dup 1.19 S5 S11 spk 1.10 S6 S11 S13 Y N Y N T F 1.10 S6 S18 1.10 S12 Y N Y N T T F 1.10 S12 Y N Y N T T F 1.10 S12 Y N Y N T T F 1.11 S13 Y N Y N T T F 1.11 S13 Y N Y N T T F 1.11 S13 Y N Y N T T F 1.11 S13 Y N Y N T T F 1.11 S13 Y N Y N T T F 1.11 S13 Y N Y N T T F 1.11 S13 Y N Y N T T F 1.11 S13 Y N Y N T T F 1.11 S13 Y N Y N T T F 1.11 S13 Y N Y N T T F 1.11 S13 Y N Y N T T F 1.12 S14 Y N Y N T T F 1.13 S15 S17 Y N Y N T T F 1.14 S16 S18 Y N Y N T T F 1.15 S19 Y N Y N T T F 1.15 S19 Y N Y N T T F	<u>Pos</u>	<u>lype</u>	***************************************		·		2000			it ph Check		F	ree)
1.3 S1 \$\frac{\text{Bll Onlisty 9 on }}{1.4 \text{ S1 dup}} \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qqquad \qqqqq \qqqqqqqqqqqqqqqqqqqqqqqqqqqqq	1-1	Blk		5-2-11	13:00	_ Y	φ	Υ	9	12	<u> </u>	Ç) F
1-4 S1 diup	1-2					· ·	N	Υ	η	12	·····		F
1-5 S1 spk	1-3	· S1	मार्गायाः 18-02	122777770000000000000000000000000000000		_ Y	Ŋ	Υ	p	4		+	F
1.6 S2 A)1 O41617-O3	1-4					, Y	#	Υ	N			1	F
1-7 S3 QII O 4 16 28 - 01	1-5	S1 spk				~ .	N	Υ	N	<u> </u>		Ť	F
1-7 S3 HIIOAIGAS-OL Y N Y N 9 F F F F F F F F F F F F F F F F F F	1-6	S2	A11041617-03		vv vacconamanamanamanamanamanamanamanamanamanam	. Y	N	Υ	N	<u> </u>	***	t	F
1-9 S5 ANO 416 88 - 03	1-7	S3	BI1041832-01			. Y	N	Υ	þ	<u> </u>		f	F
1-10 S6 A1041688-04 Y W Y W 9 W F 2-21 S7 Y N Y N Y N T F 2-22 S8 Y N Y N Y N T F 2-3 S9 Y Y N Y N T F 2-4 S10 Y N Y N T F 2-5 Blk Y N Y N T F 2-6 LFB Y N Y N T T F 2-7 S11 Y N Y N T T F 2-8 S11 dup Y N Y N T F 2-9 S11 spk Y N Y N T F 3-1 S13 Y N Y N T T F 3-2 S14 Y N Y N T T F 3-3 S15 Y N Y N T T F 3-4 S16 Y N Y N T T F 3-5 S17 Y N Y N T T F 3-6 S18 Y N Y N T T F 3-7 S19 Y N Y N T T F	1-8	54	A11041620-02			Y	N	Υ	N	2		1	F
.2-1 S7 Y N Y N T F 2-2 S8 Y N Y N T F 2-3 S9 Y N Y N T F 2-4 S10 Y N Y N T F 2-5 Blk Y N Y N T F 2-6 LFB Y N Y N T F 2-7 S11 Y N Y N T F 2-8 S11 dup Y N Y N T F 2-9 S11 spk Y N Y N T F 2-10 S12 Y N Y N T F 3-1 S13 Y N Y N T F 3-2 S14 Y N Y N T F 3-3 S15 Y N Y N T F 3-4 S16 Y N Y N T F 3-5 S17 Y N Y N T F 3-6 S18 Y N Y N T F 3-7 S19 Y N Y N T F	1-9	S5	A11041628-03			. Y	N	Y	h	9.		f	F
2-2 S8 Y N Y N T F 2-3 S9 Y N	1-10	S6	A11041628-04	<u> </u>		Y	1	Υ	W	9.	<u> </u>	V	F
2-3 S9 * YNYN TF 2-4 S10 YNYN TF 2-5 Blk YNYN TF 2-6 LFB YNYN TF 2-6 LFB YNYN TF 2-7 S11 YNYN TF 2-8 S11 dup YNYN TF 2-9 S11 spk YNYN TF 2-10 S12 YNYN TF 3-1 S13 YNYN TF 3-2 S14 YNYN TF 3-3 S15 YNYN TF 3-4 S16 YNYN TF 3-5 S17 YNYN TF 3-6 S18 YNYN TF 3-7 S19 YNYN TF	-2-1	S7				Υ	Ν	Υ	Ν			Τ	F
2-3 59 Y N Y N Y N Y N T F 2-5 Blk Y N Y N Y N Y N T F 2-6 LFB Y N Y N Y N T F 2-6 LFB Y N Y N Y N T F 2-7 S11 Y N Y N Y N T F 2-8 S11 dup Y Y N Y N T F 2-9 S11 spk Y Y N Y N T F 2-10 S12 Y N Y N T F 3-1 S13 Y N Y N T F 3-2 S14 Y N Y N Y N T F 3-3 S15 Y N Y N Y <td>2-2</td> <td>S8</td> <td></td> <td></td> <td>×.</td> <td>Υ</td> <td>Ν</td> <td>Υ</td> <td>Ν</td> <td>••••</td> <td></td> <td>Т</td> <td>F</td>	2-2	S8			×.	Υ	Ν	Υ	Ν	••••		Т	F
2-4 S10 Y N Y N T F 2-5 Blk Y N Y N T F 2-6 LFB Y N Y N T F 2-7 S11 Y N Y N T F 2-8 S11 dup Y N Y N T F 2-9 S11 spk Y N Y N T F 2-10 S12 Y N Y N T F 3-1 S13 Y N Y N T F 3-2 S14 Y N Y N T F 3-3 S15 Y N Y N T F 3-4 S16 Y N Y N T F 3-5 S17 Y N Y N T F 3-6 S18 Y N Y N T F 3-7 S19 Y N Y N T F	2-3	S9	<u>*</u>			Υ	Ν	Υ	Ν	·		Т	F
2-6 LFB Y N Y N T F 2-7 S11 Y N Y N T F 2-8 S11 dup Y N Y N T F 2-9 S11 spk Y N Y N T F 2-10 S12 Y N Y N T F 3-1 S13 Y N Y N T F 3-2 S14 Y N Y N T F 3-3 S15 Y N Y N T F 3-4 S16 Y N Y N T F 3-5 S17 Y N Y N T F 3-6 S18 Y N Y N T F 3-7 S19 Y N Y N T F	2-4	S10				Υ	Ν	Υ	Ν	÷		T	F
2-7 S11 Y N Y N T F 2-8 S11 dup Y N Y N T F 2-9 S11 spk Y N Y N T F 2-10 S12 Y N Y N T F 3-1 S13 Y N Y N T F 3-2 S14 Y N Y N T F 3-3 S15 Y N Y N T F 3-4 S16 Y N Y N T F 3-5 S17 Y N Y N T F 3-6 S18 Y N Y N T F 3-7 S19 Y N Y N T F	2-5	Blk				Υ	Ν	Υ	Ν	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Τ	F
2-7 S11 Y N Y N T F 2-8 S11 dup Y N Y N T F 2-9 S11 spk Y N Y N T F 2-10 S12 Y N Y N T F 3-1 S13 Y N Y N T F 3-2 S14 Y N Y N T F 3-3 S15 Y N Y N T F 3-4 S16 Y N Y N T F 3-5 S17 Y N Y N T F 3-6 S18 Y N Y N T F 3-7 S19 Y N Y N T F	2-6	LFB			·····	Υ	N	Υ	Ν			Т	F
2-8 S11 dup Y N Y	2-7	S11	· v		y:	Υ	Ν	Υ	Ν			T	F
2-10 S12 YNYN TF 3-1 S13 YNYN TF 3-2 S14 YNYN TF 3-3 S15 YNYN TF 3-4 S16 YNYN TF 3-5 S17 YNYN TF 3-6 S18 YNYN TF 3-7 S19 YNYN TF	2-8	S11 dup					Ν.	Y	Ν	~~~~		Τ	F
3-1 S13 YNYN TF 3-2 S14 YNYN TF 3-3 S15 YNYN TF 3-4 S16 YNYN TF 3-5 S17 YNYN TF 3-6 S18 YNYN TF 3-7 S19 YNYN TF	2-9	S11 spk				Ϋ́	Ν	Υ	Ν	·		Τ	F
3-1 S13 YNYN TF 3-2 S14 YNYN TF 3-3 S15 YNYN TF 3-4 S16 YNYN TF 3-5 S17 YNYN TF 3-6 S18 YNYN TF 3-7 S19 YNYN TF	2-10	S12		······		Υ	Ν	Υ	N	••••	*	Т	F
3-3 S15	3-1	S13				Υ	Ν	Υ	Ν			Т	F
3-4 S16	3-2	S14		ii		Υ	N	Υ	N			Τ	F
3-4 S16 YNYN TF 3-5 S17 YNYN TF 3-6 S18 YNYN TF 3-7 S19 YNYN TF	3-3	S15				Υ	Ν	Υ	N .			Т	F
3-6 S18 YNYN TF 3-7 S19 YNYN TF	3-4	S16				Υ	N	Υ	N .			Ţ	F
3-7 S19 Y N Y N T F	3-5	S17		····		Υ	Ν	Υ	N	•	·	Τ	F
	3-6	S18		:		Υ	Ν	Υ	N .		**.	Τ.	F
3-8 S20 Y N Y N T F	3-7	S19				Υ	Ν	Υ	N			Τ	F
	3-8	S20				Ý	Ν	Υ	N .		***************************************	Т	F

'omments;

CYANIDE REAGENT PREPARATION LOG

Sodium Hydroxide, 0.25N	
Date Prepared: 4/26/11 Analyst: ALW	
Supplier and Lot Number: EMD B0510904 036	· · · · · · · · · · · · · · · · · · ·
Solution ID: CN NaOH- 042611-1	
20 gm NaOH per 2000 mL Final Volume Expiral	tion Date: 4/26/12
Magnesium Chloride Reagent	
Date Prepared: 1/31/11 Analyst: ALW	
Supplier and Lot Number: Ex. 4 CBI 114472	
Solution ID: CN MgCl- 6/3/11-(MMDDYY_X)	
510 gm MgCl2 6H2O per 1000 mL Final Vol. Expirati	Ion Date: 1/31/12
Sulfuric Acid, 1:1	
Date Prepared: 4/18/11 Analyst: ALW Analyst:	***************************************
Supplier and Lot Number: EMD 49276	* :
Solution ID: CN Acid- 041811-1	
(MM00YY_X)	on Date: 4/18/12
Onto Prepared: $\frac{5/4/11}{4}$ Analyst: $\frac{4}{4}$	
Supplier and Lot Number: Ex. 4 CBI H 44616	
olution ID: CN ChlorT- 050411-1	/ /).
1.5 gm Chloramine-T per 250 mL Final Vol. Expiration	on Date: 5/5///
Pyridine-bartituric acid Reagent	
ale Prepared: 4-26-11 Analyst: ALW	
olution ID: CN PyrBar- 043611-1	
15 am Parhituria Asid Supplier and Let Number	592
FX 4 GBI	3303
15 mL conc. HCL Supplier and Lot Number: EMD 503	319 "
785 Fixed Volume of DI Expiration	on Date: 5/26///
Phosphate Buffer	
Rite Prepared: 4-26-11 Analyst: ALL)	PROCESS
PPlier and Lot Number: 37 Baker 5111,52 / 447152	
lution ID: CN Phos- OH 36-11-1	`
(мморут_х) gm NaH2PO4-H2O permL Final Vol. Expiratio	n Date: <u>5-26-11</u>

CYANIDE CALIBRATION STANDARD SOLUTIONS PREPARATION LOG

		PO\$44446 <u>C29999</u> C7999C79900000000000000000000000000		***************************************
7000 mg/L Stock Solution:				*
Pate Prepared:	5-3-11		_ Ana	lyst: <u>Aus</u>
Stock Cn Calibration Soln ID:	CN Cal Stock	<u>05031\-\</u> (MMDDYY-X)	ø-	
KCN Supplier and Lot Number:(1707		
KOH Supplier and Lot Number: E	x. 4 CBI <u> </u>	8K52		
<u>ಂ. 2503</u> gm KCN and <u>උ</u>	<u>o,∂O</u> gm KOH/	100 mL	Expiration Date:	5-17-11

Intermediate Stock Cyanide soluti				in the second se
pate Prepared:	<u> </u>		. Anal	yst: <u> </u>
D of Stock Cn Calibration Soln Used	!: <u> </u>	- [
intermediate Cn Calibration Soln ID:	CN Cal Inter- 050			
6.0 mL of 1000 mg/L C	N diluted to 100 mL	(MMDDYY-X) n 25Ni	Expiration Date:	540 11
The officer is a second of the	Valided to 100 me.	U.Z.JIV	Expiration Date.	2-11-11
Intermediate Cyanide Calibration	Solution, 1.0 mg/L:	WWW.neuWww.pooceennecoooner.coooner.coooner.coo	ikuuvuvuttitiitti s <u>oppoopaanantiittitiihaariliittiihaaniliittiihaaniliittiihaaniliittiihaaniliittii</u>	*
Date Prepared:	<u> </u>		Anal	yst: ALL
	s	, , , , , , , , , , , , , , , , , , ,		b-uggeorooghooghooghooghooghooghooghooghooghoo
ID of Intermediate Cn Calibration Sol	***************************************		**************************************	ANAX***********************************
Inter. Cn Cal. Soln 1.0 mg/L ID: CN	carinter 1.0-	(MMDDYY-X)	······	
	liluted to 100 mL 0,2	•	Expiration Date:	5-10-11
Preparation of Calibration Standar	ds:			
Date Prepared:	5-3-1		Anal	yst: Allx)
D of Intermediate Cn Calibration Sol	***************************************	990		· · · · · · · · · · · · · · · · · · ·
		-1343		
Standard Soln ID	mL of 1.0 mg/L Standard	mL	Conc., mg/L	
Cn Cal Std 1- 050311 - 1	25.0	50.0	0.50	*
Cn Cal Std 2-	10.0		0.20	
Cn Cal Std 3-	5.0	50.0	0.10	
Cn Cal Std 4-	2.5	50.0	0.05	
Cn Cal Std 5-	1.0	50.0	0.02	
Cn Cal Std 6-	0.50	50.0	0.01	e .
Cn Cal Std 7-	0.25	50.0	0.005	
Cn Çal Std 8-	0.00	50.0	0.000	510 11
(MMDDYY-X)			Expiration Date:	<u>5-10-11</u>

Standards are prepared in 0.25N NaOH

Note: MMDDYY-X is the identified added to each solution to provide a unique ID for each solution. MM is month, DD is day, YY is year and X is sequential number identifying a particular solution in the event more than one solution is prepared during the day.

ACLI Form 2122.1

Effective Date: February 22, 2008

CHECKLIST FOR CYANIDE BY FIA

Analysis Date: 5-4-11 Cn Cal 1- 050311-1 C50311-1 Solution IDs: Cn Cal 2- 050311-1 Cn Cal 3-___ Cn Cal 4- 050311-1 CN Cal 5- 050311-1 CN Cal 6- 050311-1 Cn LFB- 059311-Cn Cal 7- 050311-1 Cn 1CV- 042611-1 Cn NaOH- 042611-1 Cn MgCl- 013111-1 CN Acid- 07/18/1-Cn ChlorT- OSCHII-1 *Cn PyrBar- 040611-1 Cn Phos- 042611-1 Items in Data Package: Calibration Curve Excel Spreadsheet Auto sampler Table Copies of: Reagent Prep Log Spiking Soln. Prep Log ICV Prep Log Cal. Std. Prep Log Excel Spreadsheet Cyanide Distillation Logbook Quality Control Failures Sample Type Sumple Type Cup # Sample Type Cup # Sumple Type Cup# Notes and Comments DONE Initials of Analyst Reviewing and Submitting Data: Date Reviewed and Submitted: Initials of Analyst Performing Second Level Review:

Date Reviewed and Reported:

Cargill Iv John G. (DNREC)

From: Sent:

Ex. 4 CBI @atlanticcoastlabs.com
Thursday, June 02, 2011 9:51 AM
Cargill Iv John G. (DNREC)

To: Subject:

Attachments:

cyanide data.pdf cyanide data.pdf

<<...>>

Hello John, the QC check was ok for the cyanide hit. Data requested is in the attachment.